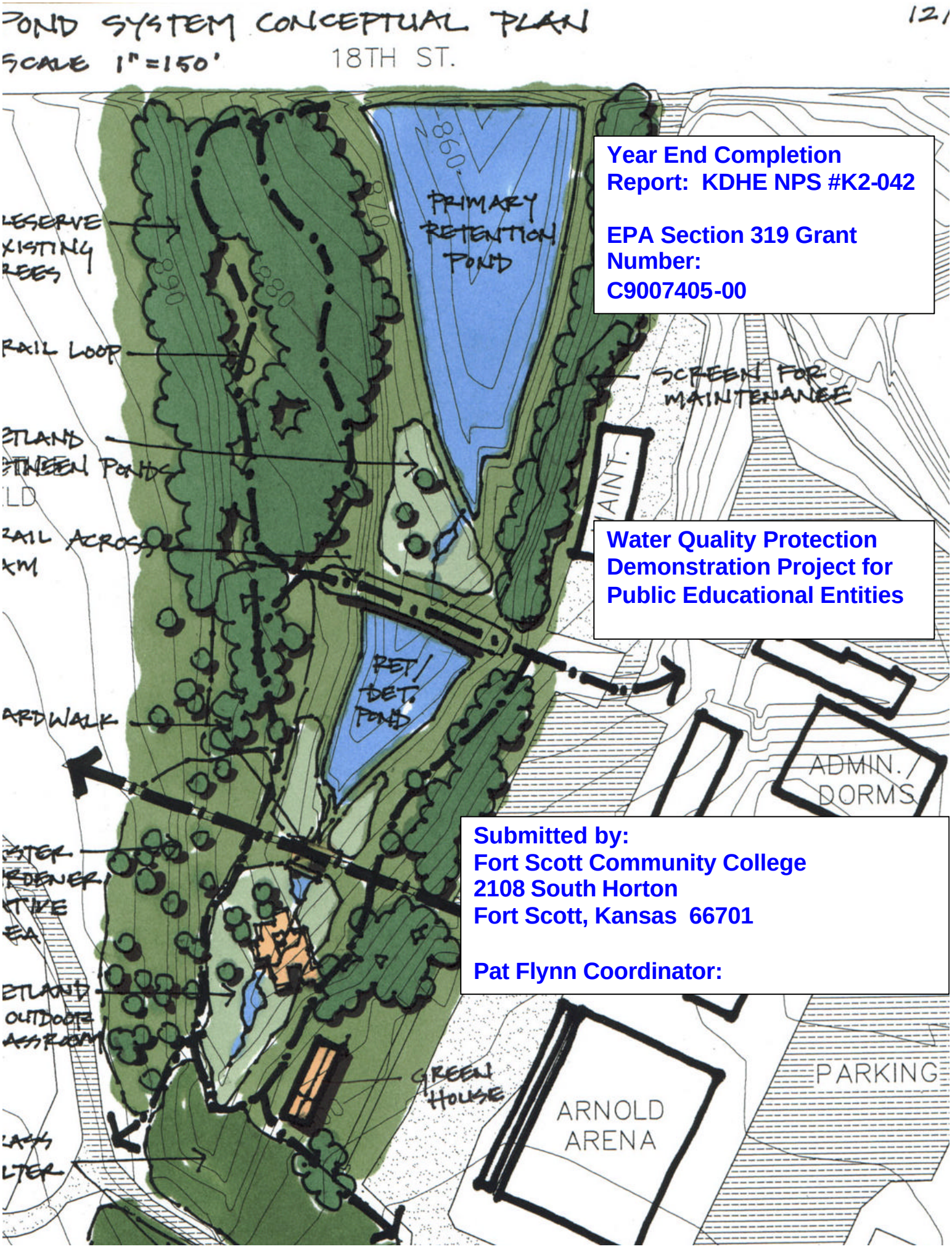


Year End Completion Report: KDHE NPS #K2-042

EPA Section 319 Grant Number: C9007405-00

Water Quality Protection Demonstration Project for Public Educational Entities

Submitted by:
Fort Scott Community College
2108 South Horton
Fort Scott, Kansas 66701

Pat Flynn Coordinator:

TABLE OF CONTENTS

Feasibility Study
Water Quality Protection Demonstration Project For Public Educational Entities

Project Completion Report: C9007405-00 (3889N/959A)

Project Summary:

Fort Scott Community College is an educational provider that has offered environmental studies since 1982. FSCC is one of only few post-secondary institutions in the United States to offer an associates degree of applied science in this discipline, the college possesses numerous resources to conduct research and develop strategies to influence decisions concerning environmental issues. The Water Quality Protection Demonstration Project for Public Educational Entities is designed to provide demonstrative efforts to assist public education institutions in developing and implementing strategies for mitigating stormwater as it passes through their property. Codes and standards are living documents, born of the efforts of responsible parties who wish to improve the quality of life within their communities, taking life experiences and learning from them. The final result of this grant is intended to produce workable solutions to natural quality impacts. FSCC is the perfect format to perform both requirements of the grant: identifying and demonstrating workable solutions for stormwater management. The college looks forward to cataloging outcomes of the effort and developing the thought process to assist public entities facing similar stormwater management and quality challenges.

The blending of concepts from the agricultural arena with technology from the municipal sector appears to be a unique and mutually beneficial partnership. This partnership creates a plan capable of producing best management practices and living examples of natural solutions to stormwater quality impacts. The project will also demonstrate the benefits of developing partnerships between public agencies and the private sector in working collaboratively to resolve critical environmental issues. The focus for 2002-2003 included selecting an engineering firm that had experience in the area of stormwater mitigation efforts and nutrient management, and preparing to begin the demonstration project.

Project Description

Background

Fort Scott Community College is the oldest continuously operated community college in Kansas. In the eighty-four year history FSCC has demonstrated vigilance to current technologies and a perpetual desire to meet the needs of the students they serve. This project will serve as a catalyst for the college to continue to serve their customer base

with environmental innovations while accepting an active role in leading public entities in stormwater management.

In the spring of 2002 Fort Scott Community College received notification that they had been awarded a thirty thousand dollar feasibility grant for a previously submitted Section 319 grant application. The focus of the grant is to prepare a request for proposal and identify an engineering firm with skills and experience in stormwater mitigation. The ultimate goal is to create a workable plan to achieve the goals identified in the grant application. The demographics of Fort Scott Community College enable them to be a desirable sponsor for a section 319 grant opportunity. The college resides adjacent to a large residential development where property owners utilize herbicides, fertilizers, and insecticides as part of their lawn maintenance program, and the Fort Scott County Club is one block south. The college campus is directly in line to receive runoff form both of these properties. The college receives runoff from an over fifty acres that constitutes the FSCC drainage area. Within the boundaries of the campus there are 5.25 surface acres of parking lots, over 2.5 surface acres of roof drainage. The property also includes a fenced area, which serves as residence for over fifty head of cattle and horses during the school year. The runoff from the college transcends Northerly through a residential area, two man-made lakes, a public park, and finally into the Marmaton River. The river serves as the drinking water supply for the community of Fort Scott and several smaller communities within the county.

The tradition at Fort Scott Community College is to educate, which will serve well in assisting other public entities in incorporating results from this grant activity into future building or renovation plans. This grant represents an additional benefit by bringing together three public agencies to solve a pressing safety problem. The portion of 18th street that is included in this project is owned and maintained by both the county and the city. Both entities have planned to upgrade a section of the road to enable greater visibility for eastbound traffic. This project enables all parties to work together to accomplish this capital improvement at am equitable cost.

Purpose

The overall purpose of this project is to demonstrate measures and practices to protect and restore the quality of water in all Kansas waterways. Current technology has place a greater significance to point source pollution and less for the magnitude of stormwater on Kansas's waterways. The purpose of this grant is to investigate methods of stormwater management and various implementation techniques. The mindset of most public entities is that they can have little effect on water quality as it falls and moves cross their properties, therefore, school or community administrators are not inclined to investigate strategies to govern or mitigate runoff. Fort Scott Community College is poised to address the project goals and provide assistance in these areas. The objectives of this grant activity included the preparation of a plan to design and analyze solution techniques while developing a scope of assistance for

appointed and elected officials representing public entities. The administration at FSCC is supportive and will participate by committing resources to furthering this benefit.

Goals and Objectives

The goals of this project were to:

1) Select an engineering firm to partner with the college while performing required engineering tasks.
2) Conduct a feasibility study assessing the impact and magnitude of stormwater as it travels through the property owned by FSCC.
3) Investigate current knowledge of stormwater mitigation techniques and determine their application within this project.
4) Create a plan to the manage stormwater.
5) Utilize the skills of an architectural engineer to construct a visual concept of the plans to help promote the project.
6) Develop local and state support for the activity.
7) Involve local, state, and federal agencies into the project.
8) Create a neighborhood awareness group to investigate and identify other contributing factors to non point source pollution.
9) Analyze technologies to improve the quality of water prior to entry into the Marmaton River upstream from the water plant intake.
10) Perform a task analysis and develop a job description for a stormwater instructor.

Project Implementation Plan

The objectives below were summarized from the Project Implementation Plans submitted March 4, 2003, and the last report for this period accompanies this document. All grant activities were conducted from May 1, 2002 through May 8, 2003

1) The Project Manager sought and obtained skilled assistance through the hiring of adjunct faculty to help address the uniqueness of this project. These personnel developed a request for proposal (RFP) for engineering firms in identifying the needs of the project.

2) The RFP was distributed to known engineering firms with experience in stormwater management and or agricultural concepts to reduce erosion and nutrient removal from stormwater runoff.

3) Personnel for FSCC selected Ag Engineering and made a recommendation to the governing body of Fort Scott Community College.

4) A continual relationship was created though the assigned personnel and Ag Engineering to evaluate and incorporate current technology into the proposed plan.

5) The Project Coordinator attended various civic functions to promote the project. Representatives from Kansas Department of Health and Environment attended a Rotary meeting and enhanced the understanding within the community.

6) The Project Coordinator visited with neighborhood leaders to develop a neighborhood awareness group to further investigate non point source pollution measures.

7) The Project Coordinator wrote specifications with the assistance of Chad Cross, agriculture instructor and rodeo coach, to construct a fence to partition the livestock and encourage rotation of livestock assigned to that area. This will allow grass to grow and encourage native grasses planted as riparian buffers to allow for designed stormwater management concepts to be applied.

8) Personnel received bids from various fencing companies.

9) The Project Coordinator made recommendations for the fence construction.

10) Construction of the agriculture fence was completed.

11) The Project Coordinator and the Project Engineer developed a request for proposal for area contractors and released seven bid packets.

12) All personnel met and elected to revise the plans for the three-cell retention pond activity to include elevating a public roadway. This effort will address several safety aspects for the community as the roadway is prone to flooding and lacks visibility for approaching traffic. This developed into a three-way partnership with FSCC, Bourbon County, and the City of Fort Scott. All parties will benefit and share in the costs.

13) Project engineer solicited and secured formal approval from various state and federal agencies concerning the project.

14) The Project Coordinator and the Project Engineer opened bids from area contractors on the project and made recommendations to the governing body for the college.

15) Personnel met with the Bourbon County Commissioners to develop an understanding and establish a workable plan for sharing the costs and the

responsibilities for the project. The county voted to provide equipment, material and personnel in support of the project.

1. To haul rock for road base.
2. To provide equipment and personnel for compaction of road to engineering specifications.
3. To produce asphalt to be used for the nearly 600 feet of six-inch overlay.
4. To assist in the installation of railing

16) The Board of Trustees reviewed the received bids for the construction of this project and selected the low bidder.

17) Personnel met with the Utilities Superintendent for the City of Fort Scott and identified the City's support for the project and developed a timeline. The City officials decided equipment, material and personnel would be devoted to support the project.

Desired Outcomes

This project is designed as a three-year project to assist public systems in addressing environmental concerns. As this project develops public officials will be able to gain a first-hand exposure to working applications to mitigation techniques. Fort Scott Community College will continue to improve curriculum and delivery methods that will include the Inter-Distance Learning Laboratory which resides within the Jack Burris Environmental Hall. The role of the Non Point Source Curriculum Designer is to focus on improving the awareness of environmental issues and promoting cost-effective strategies to reduce the negative impacts of run-off.
Kansas is a state comprised of small communities all with numerous educational institutions. The ability to address environmental concerns that currently exist at these locations and help alleviate problems is a goal of this position.

The possibility of improving awareness within the administrative level of all communities and school systems represents a positive impact for future water quality. The ultimate outcome is for responsible parties to incorporate water quality restoration and protection consciousness at the initiation of any grounds, property, construction and building design looking at long-term benefits.

Tasks Completed

1. Retained the services of adjunct faculty with prior experience in developing solutions with stormwater runoff.

2. Hired an engineering firm with an agriculture background in nutrient removal, riparian strips, and retention ponds.

3. Sought and obtained approval from state and federal agencies.

4. Obtained partnerships with local, state, federal agencies. Partnerships include participation from private enterprise.

5. Developed a video of the project.

6. Developed an understanding within the community concerning the probable impact of the project.

7. Gained numerous publicity opportunities with state and local newspapers.

8. Built fencing to promote rotation of livestock and allow grass to be maintained during time of residence of rodeo livestock.

9. Created a workable plan to retain water and enhance water quality during periods of runoff.

10. Attended Senate Sub Committee hearing t present the scope of the project.

11. Investigated possibilities for supporting projects concerning run-off from parking lots and rooftops.

12. Identified entire drainage area for this project and develop topography for future reference.

13. Secured a contactor to move earth and solicit bids for the three retention ponds.

14. Cleared brush and secured a burn permit.

15. Obtained the assistance of the Department of Agriculture and the Department of Forestry to enhance the project outcomes.

16. Obtained financial support from Bourbon County and City of Fort Scott.

Kansas Department of Health and Environment

Bureau of Water

Nonpoint Source Section

Building 283 Forbes Field, Topeka, KS 66620-0001
Phone: 785-296-4195 Fax: 785-296-5509
E-mail: NPS@kdhe.state.ks.us

Application for (Check One)

[ ] Clean Water Neighbor Project [ ] Stream Steward Project
[ ] Farmstead Water Quality Initiative Project [ ] Technical Assistance
[ ] Watershed Restoration and Protection [**X**] Technology Transfer

Water Quality Protection Model Demonstration Project for Public Educational "Entities FFY02 Funded"
Name of Proposed Project

Fort Scott Community College 2108 South Horton
Name of Sponsoring Organization Mailing Address

Fort Scott, Kansas 66701 316-223-2700 / 316-223-4927
City, State, ZIP Phone Number and FAX Number

patf@ftscott.cc.ks.us FEIN #480723448
E-mail address FEIN Number (required for payment)

Name of Project Coordinator: Pat Flynn

Total Project Cost: $202,162.50

Amount of Requested Grant Funds (Can not exceed 60% of total project cost): $149,750

How many individuals does your organization represent? Eastern one third of the State

Proposed Project Start Date: July 1, 2003 End Date: June 30, 2004

Signatures:

Project Coordinator	Date	Sponsoring Organization Officer	Date
Typed or Printed Name		Typed or Printed Name	

A

Application Submission

I. Problems to be addressed

A. Runoff from parking lots, rooftops, golf courses, row crop operations, and animal storage facility contributes to the nutrient loading of the Marmaton River. Public entities in Kansas should serve as leaders for their communities by modeling best management practices and limiting the impact of Nonpoint source pollution. The activities of this grant will demonstrate methods for improving storm water and developing management techniques to assist public entities.

B. Site Location (See attached map)
The location for all activities for this grant will be on the campus of Fort Scott Community College and 18th Street located adjacent to the FSCC property. The offices and the classrooms for the participants of this program will be within the confines of Jack Burris Hall, which currently is equipped with a classroom, laboratory, Interactive Distance Leaning Center, and offices.

C. Watershed Name: Marmaton Watershed
(1) HUC 8 10290104010080

D. Ecoregion
Central Irregular Plains

E. Longitude and Latitude: 37 degrees-49.017 north latitude,
94 degrees-43.005 west longitude

F. Water body Name: Marmaton

(1) Water body type (check as many as apply)

[X]Stream [X] River [ ]Lake [X] Reservoir [X] Pond [X] Wetlands [ ]Groundwater

(2) Water uses, which occur at the project site and up to ten miles downstream of the site:

[X]Swimming [ ] Skin diving [X] Boating [ ] Skiing [X] Wading [X] Fishing
[X] Hunting [X] Irrigation [X] Drinking water [ ] Threatened/endangered species
[X] Livestock watering [ ] other (describe)

G. Source if problem or threat.

[X]Urban area runoff	[ ] Cropland runoff
[X] Pastureland runoff	[X] Rangeland runoff
[X] Livestock production area runoff	[ ]Industrial runoff
[X] Construction site runoff	[X] Recreation area runoff
[X] Pesticide application runoff	[X] Nutrient application runoff
[X] Eroding stream bank	[ ] Degraded riparian area runoff
[ ]Degraded wetland	[ ] Solid waste disposal area
[ ] other (describe)_____	

2. Project Objectives: Project will encourage the following water quality protection measures to be implemented:

	Number of Cooperators involved	**Number of Acres or Units involved**
Establish Ground Cover:		
[ ] Increase crop residue (acres)		
[X] Planting permanent native grasses	Three	Eighteen acres
[X] Planting Trees (running feet)	Three	1200 feet
[ ] Other		
Establish:		
[X]Nutrient management Plan	One	Fifteen
[X]Pesticide management plan	One	Fifty-two
Control Polluted Runoff with:		
[ ] Diversion (acres)		
[X] Detention Basin (acre/feet)	Three	3.2 Acre-Ft
[X] Vegetation filter (acres)	Two	Two ac
[X]Wetlands (acres)		
[ ] Plug Abandoned Water Well (number)		
[ ] Domestic Wastewater		
[ ] Farmstead Water Quality Protection Plan		
[ ]Home site Water Quality Protection Plan (s)		
[ ]Commercial/Industrial Water		
[ ]Quality Protection Plan (s) (number)		
[ ] Livestock Pollution Control Plan(s)		
Type of Animal and Number of Head		
____ Cattle		
____ Dairy Cattle		
____ Hogs		
____ Sheep		
____ Other (Identify)		

[ ] Other (Describe) _____

Time Line for Year Two Grant

First Quarter Activities

Begin construction for the storage facility and composting project.
Mark and begin removal of trees within the impoundment area.
Coordinate with neighborhood group in the area to ` coordinate all activities.
Set grade stakes for construction of retention ponds and impoundment project.
Develop specs for the additional dirt work terracing.
Begin construction of the retention ponds and impoundment project.

Second Quarter Activities

Set grade stakes for the cattle feeding area.
Set culvert piping for runoff project.
Begin planting trees for carbonaceous substrate.
Set grade stakes for connecting piping with existing projects for roof and parking lot run off projects.
Collect soil samples and obtain results.
Begin sowing of grass seed and native grass seed for riparian strips.
Planting vegetation for runoff project from the parking lots to retention lakes.

Third Quarter Activities

Let bids for greenhouse.
Begin construction of the peat moss beds for parking lot runoff.
Flow Monitoring for parking lots
Begin the construction of the rock filter.
Advertise for faculty position
Make recommendation to Board for new hire

Fourth Quarter Activities

Determine competencies for Non Point Source curriculum
Submit specs for bid on the applied instructional techniques to be incorporated into the outdoor environmental classroom
Let bids for hardware and software for Internet project
Recommend selection of textbook and instructional aids for Ag Tech program and Non-point Source program.
Write specs for improved IDL equipment and pertinent equipment.
Begin carbonaceous substrate project
Audit NPS Program
Begin design process for instructional methods for Non Point Source course materials

Inventory of the Pollution Sources

1. Storm water runoff golf course
2. Storm water runoff roof drains
3. Storm water runoff parking lots
4. Storm water runoff from animal containment site
5. Storm water reuse

A. Storm Water Runoff Project

This project will demonstrate effective strategies to manage storm water runoff from sources of pollution located on or around the FSCC campus, which includes 5.25 acres of parking lots, over 2.5 acres of roof drainage, and runoff from an eighteen-hole golf course located one block from the project area. The project will utilize riparian strips, an impoundment area, and a series of retention ponds to maximize recovery of stormwater.

The grant activities for this project period include:

a) Constructing a rock structures to disrupt the flow of water from the roof drains and to eliminate the erosion.
b) Planting and establishing filter strips to capture excessive nutrients from the adjacent properties, livestock area, parking lots, roof drains and golf course.
c) Building a facility to house equipment and classroom necessary to demonstrate conclusions realized from the grant. This site will include a concrete pad to promote proper drainage. This site will also serve as the location for a composting operation.

B. Impoundment Project

This project will demonstrate applications of constructed stormwater mitigation methods to college students and property owners.

The grant activities for this project include:

a) Constructing an impoundment area and utilizing aquatic plants and trees grown in the greenhouse.
b) Installing a control box and sluice gate to monitor the influent to the impoundment area and to direct influent flows enabling continuous operation even during routine maintenance.
c) Constructing paths around the area enhancing the educational aspects of stormwater management applications.
d) Building information points describing the activity and the natural processes occurring to remove pollutants.
e) Planting of trees in accordance with recommendations by the Department of Forestry
f) Planting of grasses including native grasses in accordance with recommendations by the Department of Agriculture.
g) Evaluate the usage of specific grasses such as salt grass.

roposed Impoundment Area

Proposed Retention Pond Site

Proposed Impoundment Area

C. Water Reuse Project

This project will improve the quality of water as it travels from the FSCC campus to the Marmaton River. The natural pathway for the runoff after it departs FSCC is through a series of private ponds, then to a lake located within a public park and ultimately upstream from the Fort Scott water plant intake. The focus of this activity is to construct retention ponds to precede the impoundment area. The water will be retained and can be used to reduce the demand on the city water supply by developing an aggressive reuse program.

The grant activities for this project include:

A) Constructing three dams creating a total of 3.2-acre-ft of storage contained within two retention ponds.
B) Redirecting the runoff from the neighborhood and west side of the golf course towards the impoundment and retention area.
C) Planting native grasses parallel to reduce maintenance and improve the effectiveness of the riparian strips.
D) Establishing a consistent source of water for an irrigation system to reduce water demand from the local utility.
E) Planting trees to create a carbonaceous substrate, windbreaks, and to serve as a component of the impoundment process.
F) Constructing a usable greenhouse to investigate horticulture operations, to grow plants to be used in the drainage area, and to evaluate the effectiveness of various horticulture that may be used in the treatment of nutrient enriched waterways.

FSCC properties to be used in the water reuse project

North parking lot for runoff project

Management Demonstration Project

This project will provide working applications of natural mitigation efforts for public entity administrators, concerned citizens, and college students pertaining to natural methods of improving water quality.

The grant activities for this project include:

A) Constructing a nature trail that involves the retention ponds, the livestock hosting area, the constructed impoundments, the trees that will make up the substrate area adjacent to the impoundment with the final goal to connect this path to the existing path.
B) Creating a video presentation that displays lessoned learned from the grant activities.
C) Retaining a fulltime instructor to develop curriculum, promote the program, prepare to teach quality assurance techniques for non point source pollution and assist in managing the project.

F. Miscellaneous Information

A) Explain how you will recruit people to cooperate with the program.
   1) By the utilization of existing partnerships with established organizations:
   2) By presentations through civic groups.
   3) Utilizing media coverage.
   4) Continuing to participate with the Kansas Environmental Leadership Program.
   5) Partnering with Kansas State and creating a group of Kansas Master Gardeners to assume responsibility for property within the grant area.

B) Explain how you will inform the general population of the project.
   1) The college enjoys a good working relationship with the local newspaper and area radio and television stations.
   2) The college will utilize its own public relations department to coordinate and promote these efforts.
   3) The department will release a newsletter twice a year and will feature the activities of the grant.
   4) The department has two advisory boards representing the rural population from Southeast Kansas and the metropolitan areas of the northern regions of eastern Kansas.

C) Explain how you will inform the general population of the results of the project

D) Involving the FSCC the public relations office and the department newsletter.

1) Working in partnership with Kansas State University and the KELP program enabling participants to gain a first hand perspective of pollution control measures.

2) Creating a CD that can be used to help educate the public of existing technology that address NPS concerns.

E) Explain how you will inform the community leaders of the project and its results.

1) Through the maintenance of the existing partnership that has developed since this project was initiated

2) The department recruits and graduates students that will be entering the workforce and through their experiences with this grant will maintain actual applied experiences that will influence how they address this issue in the future.

E) Goals and Objectives for FFY2002

i. Objective #1 Construct physical water quality protection system.

1. Mark and begin removal of trees within the impoundment area.
2. Set grade stakes for construction of retention ponds and impoundment project.
3. Coordinate with neighborhood group in the area to coordinate all activities.
4. Develop specs for the additional dirt work terracing.
5. Begin construction of the retention ponds and impoundment project.
6. Begin construction for the storage facility and composting project.
7. Collect soil samples and obtain results.
8. Begin sowing of grass seed and native grass seed for riparian strips.
9. Planting vegetation for runoff project from the parking lots to retention lakes.
10. Construction of the rock filter.
11. Begin construction of the peat moss beds for parking lot runoff.
12. Contact Kansas State to initiate Master Gardener program.
13. Set culvert piping for runoff project.
14. Begin planting trees for carbonaceous substrate.

2) Develop curriculum for a non-point source educational program.

a) Write specification and advertise for bids for greenhouse.

b) Flow Monitoring for parking lots

c) Advertise for faculty position.

d) Make recommendation to Board for new hire.

e) Determine competencies for Non Point Source curriculum

f) Submit specs for bid on the applied instructional techniques to be incorporated into the outdoor environmental classroom

g) Let bids for hardware and software for Internet project

f) Recommend selection of textbook and instructional aids for Ag Tech program and Non-point Source program.

g) Write specs for improved IDL equipment and pertinent equipment.

h) Begin design process for instructional methods for Non Point Source course materials

h) Audit NPS Program

B

Recommendations to the Board

Interoffice memorandum

Mark Green, PE, Staff Eng Env. Technology Dept., FSC

Date: November 19, 2003
To: Pat Flynn, Director of Environmental Technology, FSC
CC:
Subject: Qualifications Review of consultants submitting for Water Quality Protection Model Project at Fort Scott Community College

Pat,

I have reviewed the qualification submittals from the following firms; Professional Engineering Consultants, Peridian Group, Inc., and Agricultural Engineering. I offer the following comments and recommendations for your consideration:

Professional Engineering Consultants: The qualifications submitted by PEC focused on experience in storm water and wastewater projects. Based on projects listed, these are primarily structural and do not appear to address natural controls as indicated in your grant. The main project team submitted have heavy credentials in transportation and surveying - which would lead me to believe working on this project might be approached in a more traditional manner rather than as a demonstration project. PEC is qualified in dam design and surveying and therefore is a candidate with regards to individual pieces of the project. I would rank them number 2 of the firms submitting while trying to match the college's needs.

Peridian Group, Inc.: The qualifications submitted by the Peridian Group, Inc. are very thorough and diverse and reflect the ability to meet the project needs of the grant. My concerns are several ideas/recommendations contained within the proposals are solutions we have already discussed, specifically with the application of best management practices, (BMPs). In addition, the Corps of Engineers wetland requirements are cited as a concern for this project. I believe this can be easily addressed once the aerial work and predesign drawings are complete with a meeting between yourself, the selected consultant, and the Corps to determine if any special issues exist. If they do we can handle at a later date. As we discussed earlier, this first phase we were focusing on more general engineering support for dam design and survey work and therefore from a cost benefit stand point I believe the consultant team of Peridian Group, Inc. would prove to be the most costly to the college. I would rank them number 3 of the firms submitting in consideration of the best value.

Agricultural Engineering Associates: The qualifications submitted by Agricultural Engineering Associates indicate a general understanding and solid background in small pond design as well as topographical surveying. The estimated fees submitted are also in-line and in fact economical for the work proposed. Agricultural Engineering Associates is also a local Fort Scott consultant and therefore providing effort on a demonstration project could benefit both the college and the consultant a win-win solution. I would rank them number 1 of the firms submitting in considering the above factors. Before recommendation of award however there are some issues/concerns that need to be addressed. These are as follows:

Issues/Clarifications/Concerns:

1. Project Team: Mr. George only discussed his experience. It would be helpful to see a list of staff from his firm that will be involved in the project w/ associated resumes.

2. Regulatory Issues: Mr. George discussed briefly the Division of Water Resources but did not discuss the Corps of Engineers or other regulatory entities. I would request a statement be submitted that indicates his level of experience in dealing with all regulatory type agencies.

3. Wetland design: The BMP that has very good potential is a wetland system. I would ask if Agricultural Engineering Associates has experience in wetlands as well as waste water lagoon systems.

4. Dam design: Once the watershed is delineated and land cover identified, I will run a model called Windet Pond from a water quality perspective. More than likely the impoundment would not change in size just the outlet structure. Typically installed in the outlet is an orifice specifically for the water quality volume and then at a higher elevation in the structure the flood control orifice is installed. I would discuss with Mr. George if he is comfortable in looking at alternative outlet controls and then verifying that the design will meet flood control

issues.

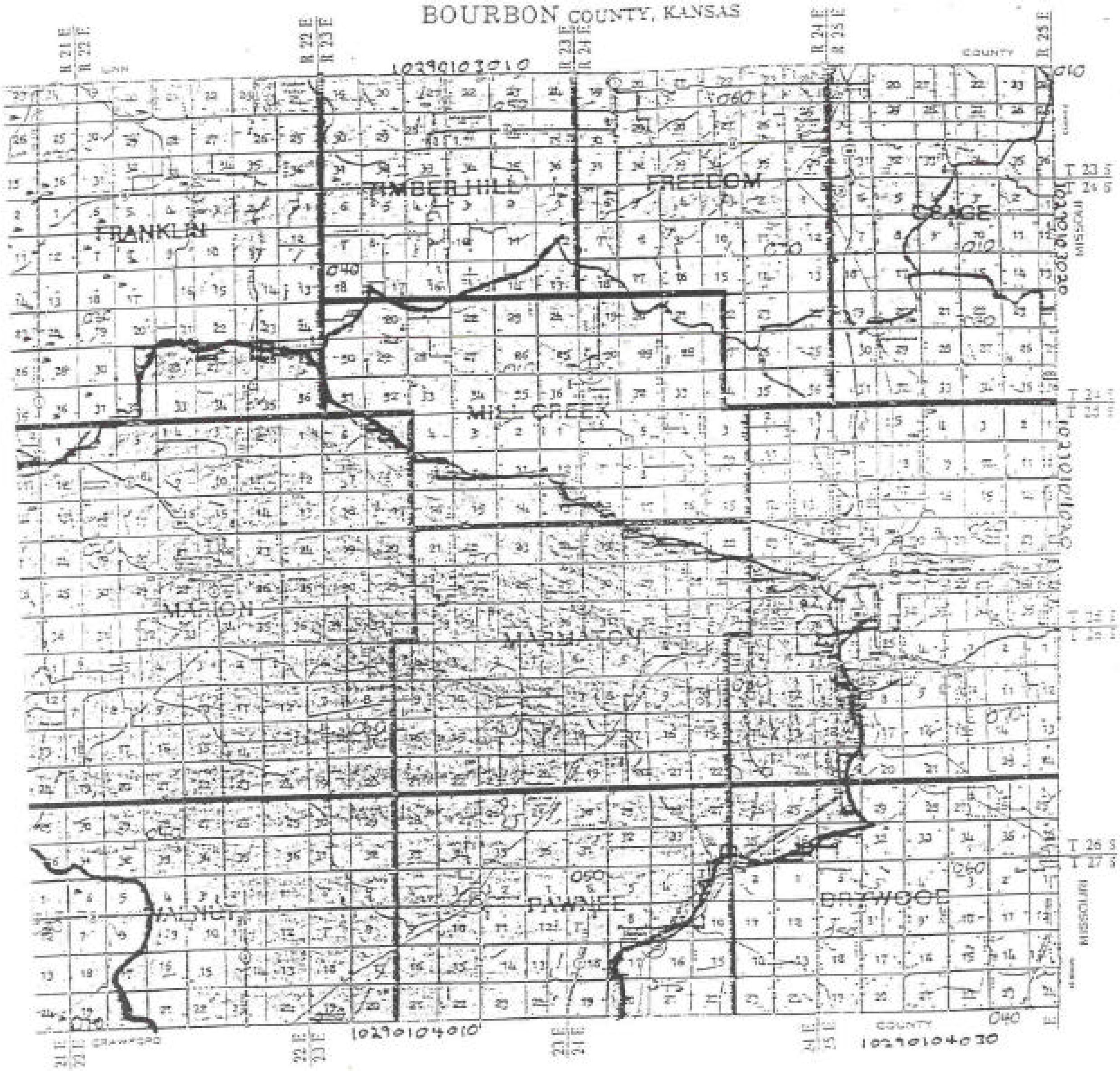
5. Forebay design: Typically in a wetland or retention pond a forebay system (a smaller micropool) is placed upstream of the main facility. The intent is to perform routine dredging, every 3 - 5 years on the forebay to extend the life of the main facility. This issue should be discussed and Mr. George asked of experience in forebays.

6. Pond Safety: I would discuss with Mr. George his experience on safety issues with regards to wetlands/ponds and have him provide general design guidelines if possible. An example is the use of a bench after the vegetation and prior to the permanent pool typically sloped at 12:1 and extending about 15 feet wide. In addition, short circuiting is an issue with the west Nile virus concern stagnant water will have to be addressed. Has Mr. George some design guidelines he uses to ensure that short circuiting of the water does not occur.

C

Maps and Diagrams

BOURBON COUNTY, KANSAS



No. 49294

OTHICK ABSTRACT COMPANY

Bonded And Licensed Abstracters

S U P P L E M E N T A L

ABSTRACT OF TITLE

- TO -

The following described real estate situated in Bourbon Co., Kansas, to-wit:

Lot 9 in the NE¼ of Section 6, Township 26 South, Range 25, East of the 6th. P.M., described as follows, to-wit:
Beginning at a point 176 rods 12.24 feet East and 806 feet South of the Northwest corner of said Section 6, running thence South 120 feet, thence West 250 feet, thence North 120 feet, thence East 250 feet to point of beginning.

From: November 28th., 1956 @ 8:00 A.M.

No. 50419

OTHICK ABSTRACT COMPANY

Bonded And Licensed Abstracters

S U P P L E M E N T A L

ABSTRACT OF TITLE

-TO-,

The following described real estate situated in Bourbon Co., Kansas, to-wit:

Part of the N½ Section 6, Township 26 South, Range 25, East of the 6th. P.M. described as follows: Beginning at the Northwest corner of said Section 6, running thence East on Section line 179 rods, thence South parallel with the Section line 128 2/3 rods, thence West parallel with Section line 179 rods, thence North 128 2/3 rods to place of beginning, except the South 200 feet thereof.

From: December 20th., 1965 @ 9:00 A.M.

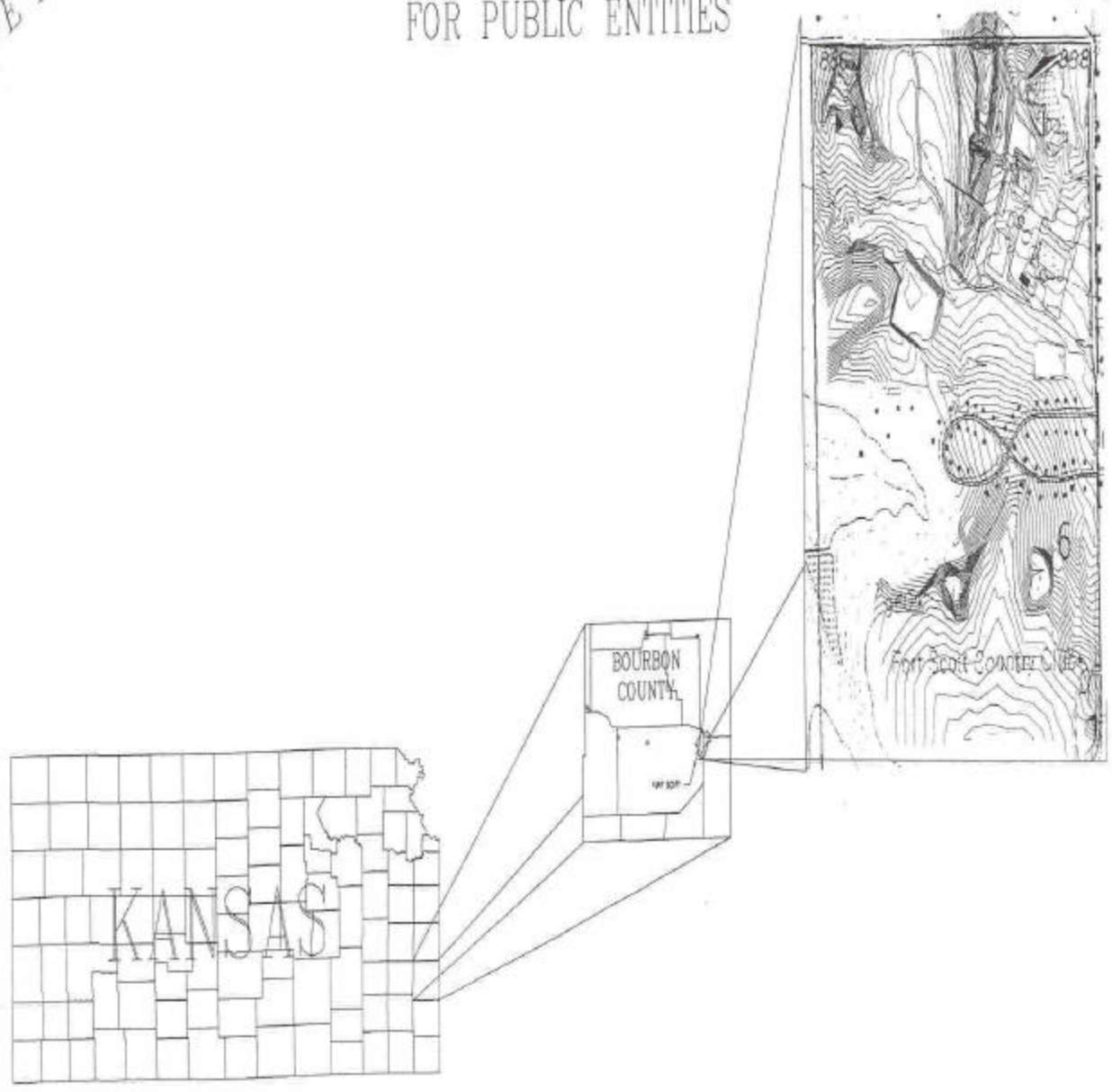
D

Engineering Drawings

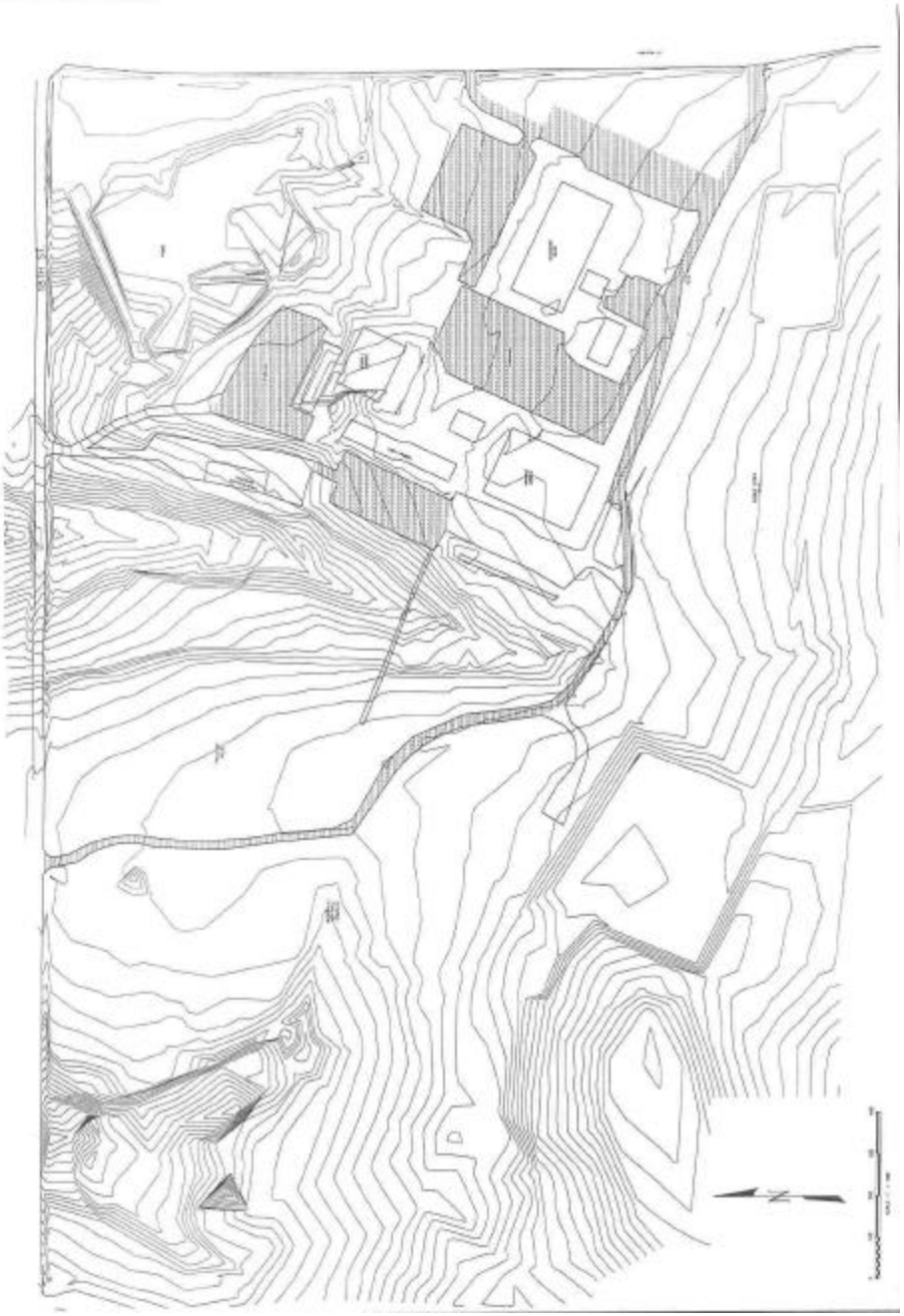
FORT SCOTT COMMUNITY COLLEGE

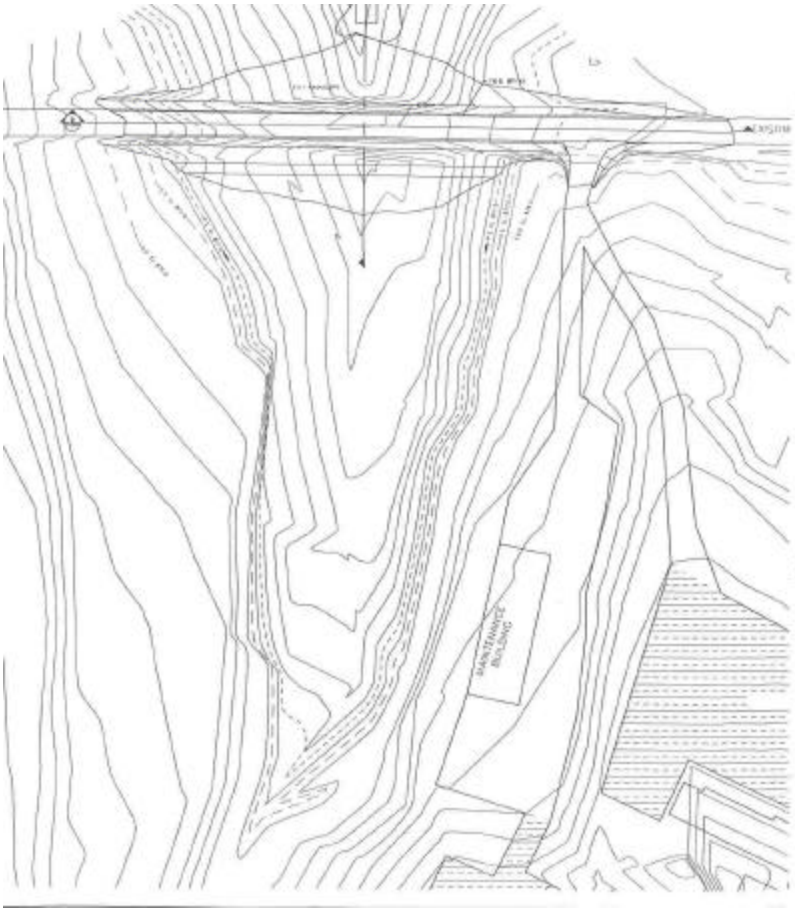
DEPARTMENT OF ENVIRONMENTAL TECHNOLOGY

WATER QUALITY PROTECTION DEMONSTRATION PROJECT FOR PUBLIC ENTITIES




16TH ST.
PRACTICE FIELD
BASEBALL/ SOFTBALL COMPLEX
LANE
POND
PARKING
ROAD
ROAD
PARKING
ARNOLD ARENA
ACADEMIC BLDG.
15 HOLROY
ROPED STOCK PENS
COUNTRY CLUB HILLS
POND
POND
N


N



STRUCTURE CLASS:	IA
LENGTH:	560.0 FT
MAXIMUM HEIGHT:	25.8 FT
TOP WIDTH:	42 FT
FRONT SLOPE:	3:1
REACH SLOPE:	10:1
BACK SLOPE:	2-1/2:1
BEACH SLOPE WIDTH:	10 FT

ESTIMATED EARTHWORK QUANTITIES

EMERGENCY SPILLWAY EXCAVATION:	0 CU YD	
EARTHFILL ABOVE CORE TRENCH:	14895 CU YD	
CORE TRENCH BACKFILL:	1208 CU YD	(INCLUDES TRENCHING FOR SPILLWAY

PRIMARY SPILLWAY PIPE

LENGTH:	139 FT
DIAMETER:	42 IN
TYPE:	ADS N-12 HDPE
MAXIMUM OUTFLOW:	5.8 CFS AT ES ELEVATION
AVERAGE OUTFLOW:	1.93 CFS (33% OF MAX OUTFLOW)
DETENTION VOLUME DRAIN TIME:	0.9 DAYS AT AVG OUTFLOW 20.5 HRS AT AVG OUTFLOW

DRAWDOWN PIPE

LENGTH:	193 FT
DIAMETER:	4 IN
TYPE:	SDR 21 PVC

HYDROLOGICAL DATA

DRAINAGE AREA:	52.3 AC	
MAXIMUM FLOW LENGTH:	3380 FT	
MAXIMUM ELEVATION DIFFERENCE:	81 FT	
TIME OF CONCENTRATION:	0.19 HRS	
SOIL COVER COMPLEX:	AMC II= 70	AMC III=85
PEAK INFLOW:	156 CFS (5/10 CFS/SQ MI/IN; 50 YR; 6 HR STORM)	

SEDIMENT STORAGE

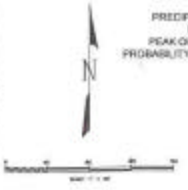
ACCUMULATION TIME:			50 YR
95 %	GRASSLAND AT	0.35 AC-FT/SQ MI/YR:	1.04 AC-FT
0 %	CROPLAND AT	1.20 AC-FT/SQ MI/YR:	0.00 AC-FT
TOTAL STORAGE REQUIRED:			1.67 AC-FT
SEDIMENT YIELD DEPTH:			0.38 IN (SEDIMENT VOLUME/DRAINAGE AREA)

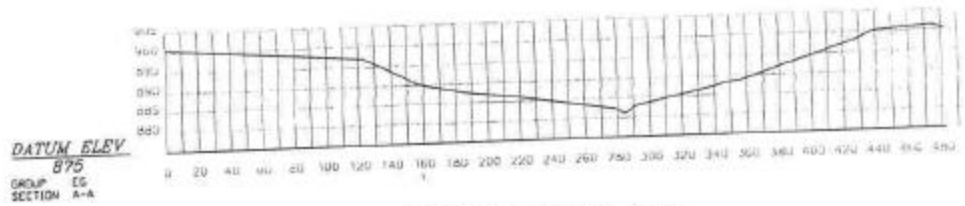
DETENTION STORAGE

PRECIPITATION:	4.8 IN (2-YR, 6-HR STORM)
RUNOFF:	0.55 IN (AMC II)
DETENTION VOLUME:	2 AC-FT

EMERGENCY SPILLWAY DESIGN

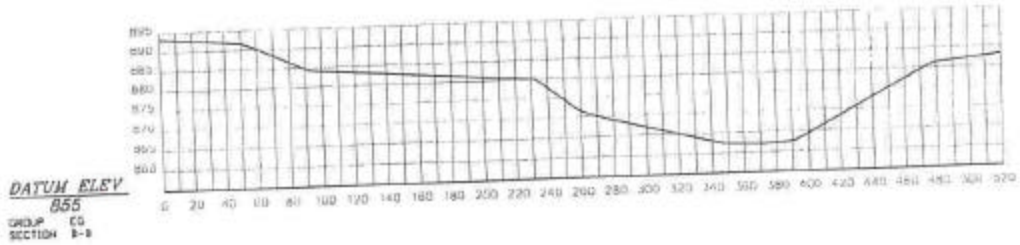
PRECIPITATION:	5.4 IN (50-YR, 6-HR STORM)
RUNOFF:	3.74 IN (AMC II)
PEAK OUTFLOW:	92.7 CFS
PROBABILITY OF USE:	2 %





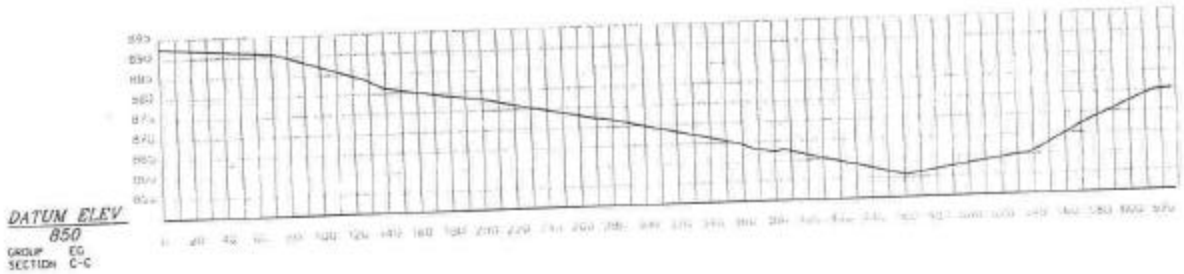
CROSS SECTION A-A

VERT: 1"=32'
HORZ: 1"=80'



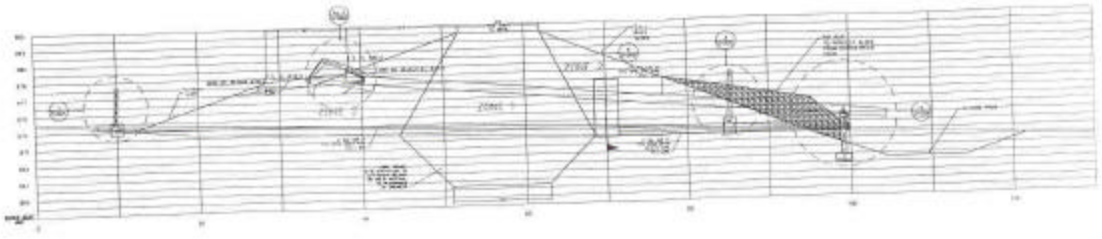
CROSS SECTION B-B

VERT: 1"=32'
HORZ: 1"=80'

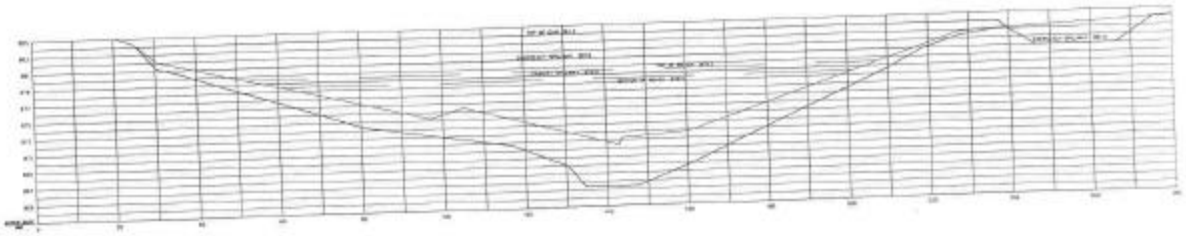


CROSS SECTION C-C

VERT: 1"=32'
HORZ: 1"=80'

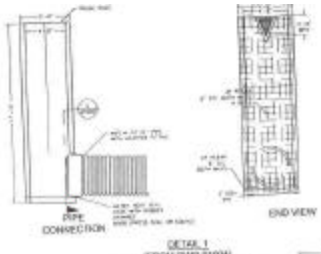


SECTION C
(FROM DWG 01006)
SPILLWAY AND DRAWDOWN PIPE PROFILE
SCALE: VERT 1"=5' HORZ 1"=1'



SECTION D
(FROM DWG 01006)
VALLEY PROFILE
SCALE: VERT 1"=5' HORZ 1"=50'

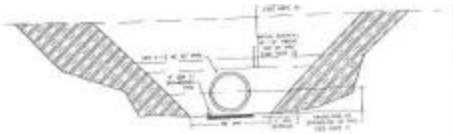
SECTION E
(FROM DWG 01004)
SPILLWAY DROP STRUCTURE PLAN VIEW
SCALE: 1"=1'



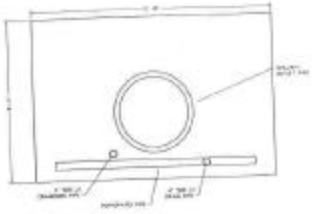
PIPE CONNECTION

END VIEW

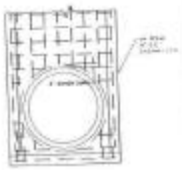
DETAIL 1
(FROM DWG 01004)
SPILLWAY STRUCTURE DETAILS
SCALE: 1"=1'



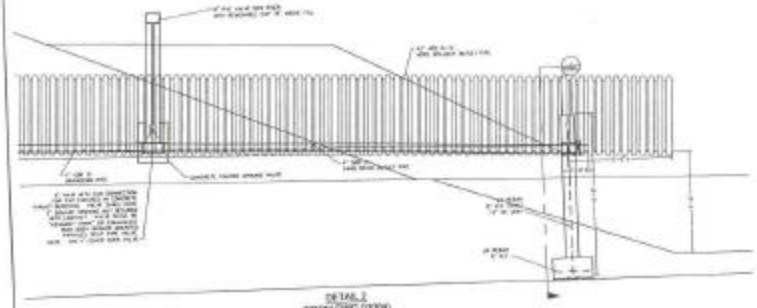
SECTION F
(FROM DWG 01004)
SPILLWAY OUTLET PIPE TRENCHING DETAIL
SCALE: 1"=1'



SECTION G
(FROM DWG 01004)
CHIMNEY SAND DRAIN
SCALE: 1"=1'

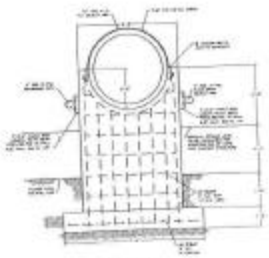


SECTION H
(FROM DWG 01003)
REBAR AT PIPE CONNECTION DETAIL
SCALE: 1"=1'

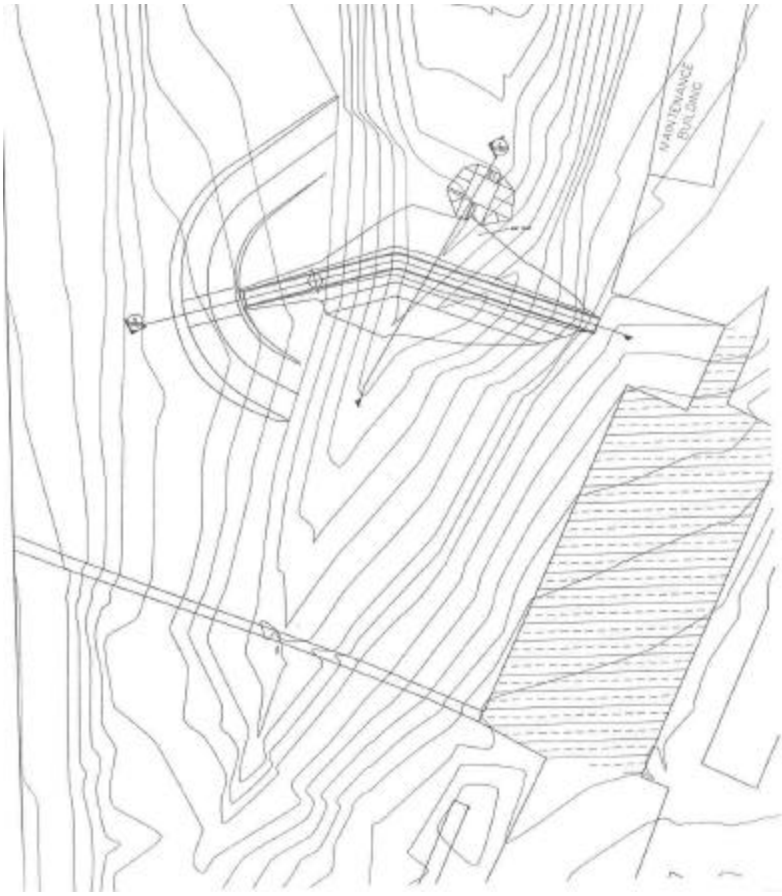


DETAIL 2
(FROM DWG 01004)
SPILLWAY & DRAWDOWN OUTLET DETAIL
SCALE: 1"=1'

DETAIL 3
(FROM DWG 01004)
DRAWDOWN PIPE INLET
SCALE: 1"=1'



SECTION J
(FROM DWG 01005)
OUTLET PIPE SUPPORT STRUCTURE
SCALE: 1"=1'



STRUCTURAL DESIGN

STRUCTURE CLASS:	1A
LENGTH:	185.0 FT
MAXIMUM HEIGHT:	13.5 FT
TOP WIDTH:	10 FT
FRONT SLOPE:	3:1
BEACH SLOPE:	10:1
BACK SLOPE:	2-1/2:1
BEACH SLOPE WIDTH:	10 FT

ESTIMATED EARTHWORK QUANTITIES

EMERGENCY SPILLWAY EXCAVATION:	381 CU YD
EARTHFILL ABOVE CORE TRENCH:	2302 CU YD
CORE TRENCH BACKFILL:	313 CU YD

PRIMARY SPILLWAY PIPE

LENGTH:	66± FT
DIAMETER:	12 IN
TYPE:	SDR 35 PVC
MAXIMUM OUTFLOW:	8.7 CFS AT ES ELEVATION
AVERAGE OUTFLOW:	6.1 CFS (76% OF MAX OUTFLOW)
DETENTION VOLUME DRAIN TIME:	0.1 DAYS AT AVG OUTFLOW
	1.9 HRS AT AVG OUTFLOW

DRAWDOWN PIPE

LENGTH:	43± FT
DIAMETER:	4 IN
TYPE:	SDR 21 PVC

HYDROLOGICAL DATA

DRAINAGE AREA:	47.3 AC	
MAXIMUM FLOW LENGTH:	2380 FT	
MAXIMUM ELEVATION DIFFERENCE:	81 FT	
TIME OF CONCENTRATION:	0.19 HRS	
SCS, COVER COMPLEX:	AMC II– 78	AMC III – 88
PEAK INFLOW:	156 CFS (1	510 CFS/SQ MI/IN; 50-YR, 6-HR STORM)

SEDIMENT STORAGE

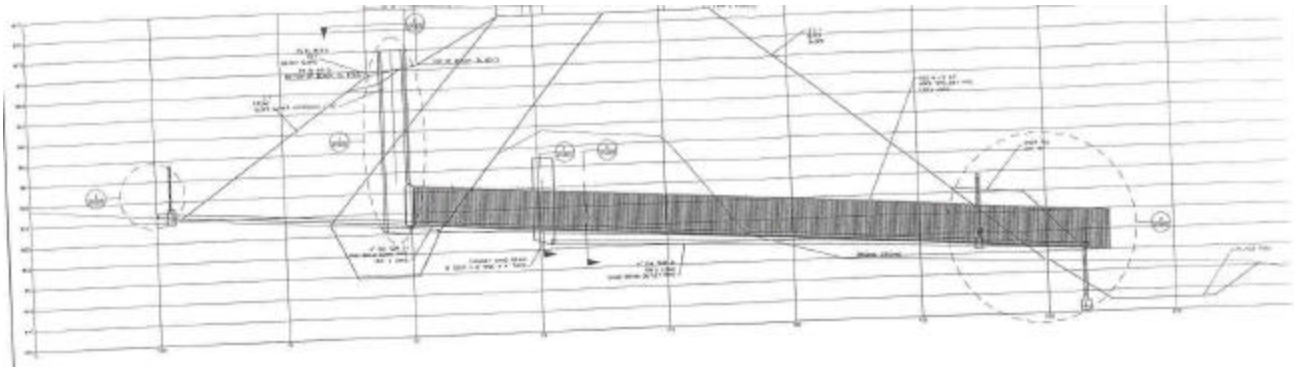
	ACCUMULATION TIME:	50 YR
95 %	GRASSLAND AT 0.35 AC-FT/SQ MI/YR:	1.64 AC-FT
0 %	CROPLAND AT 1.20 AC-FT/SQ MI/YR:	0.00 AC-FT
	TOTAL STORAGE REQUIRED:	1.64 AC-FT
	SEDIMENT YIELD DEPTH:	0.36 IN (SEDIMENT VOLUME/DRAINAGE AREA)

DETENTION STORAGE

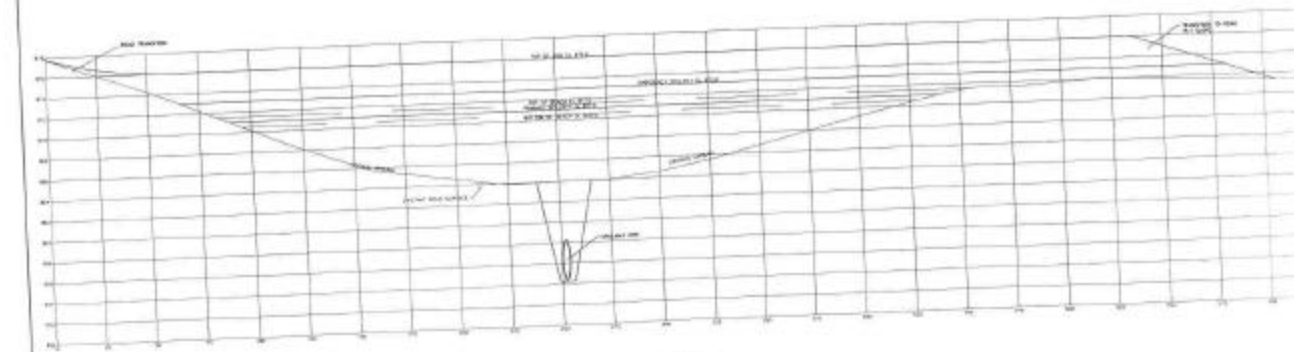
PRECIPITATION:	4.8 IN (2-YR, 6-HR STORM)
RUNOFF:	0.55 IN (AMC II)
DETENTION VOLUME:	2 AC-FT

EMERGENCY SPILLWAY DESIGN

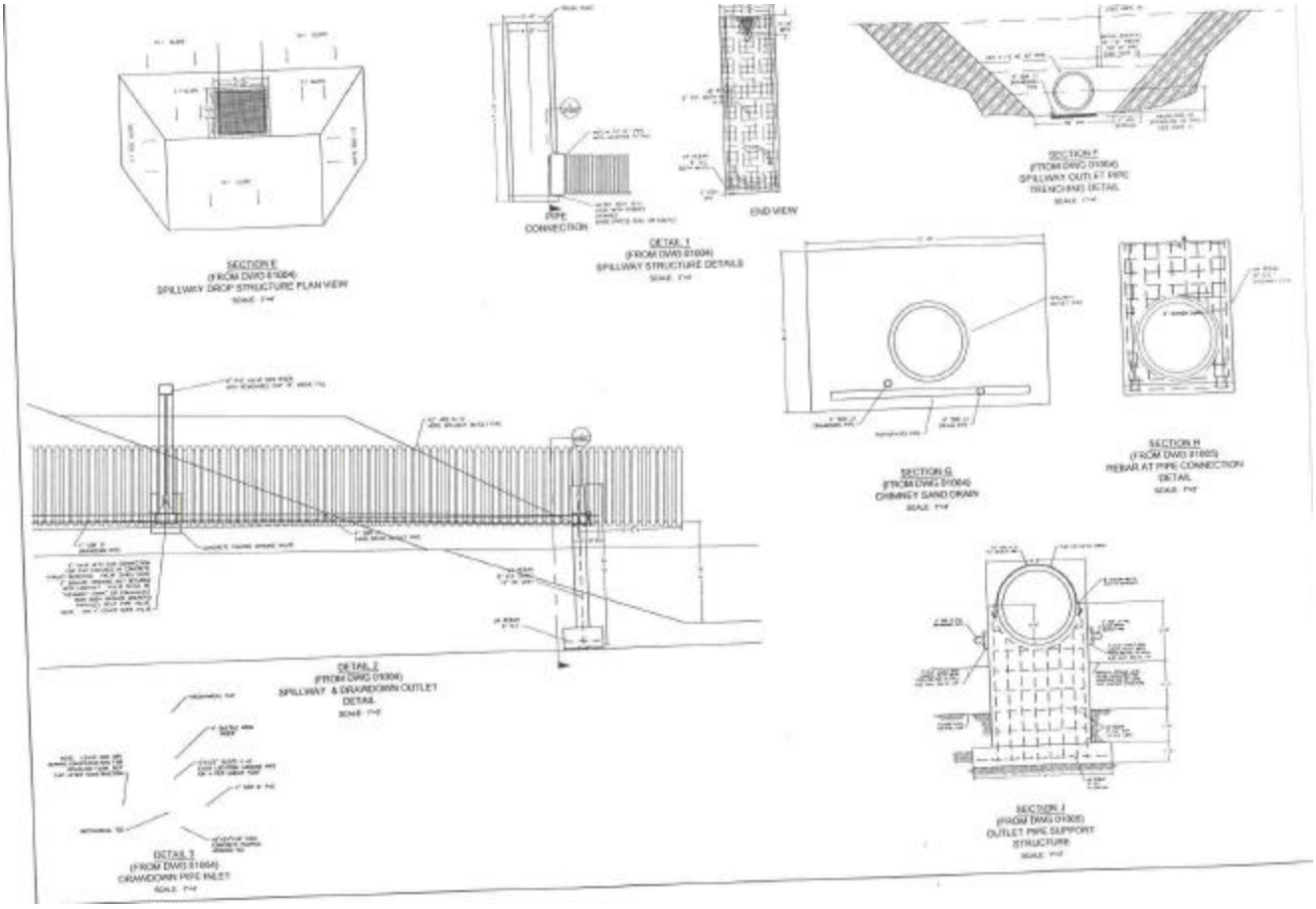
PRECIPITATION:	6.4 IN (50-YR, 6-HR STORM)
RUNOFF:	3.74 IN (AMC II)
PEAK OUTFLOW:	150 CFS
PROBABILITY OF USE:	2 %

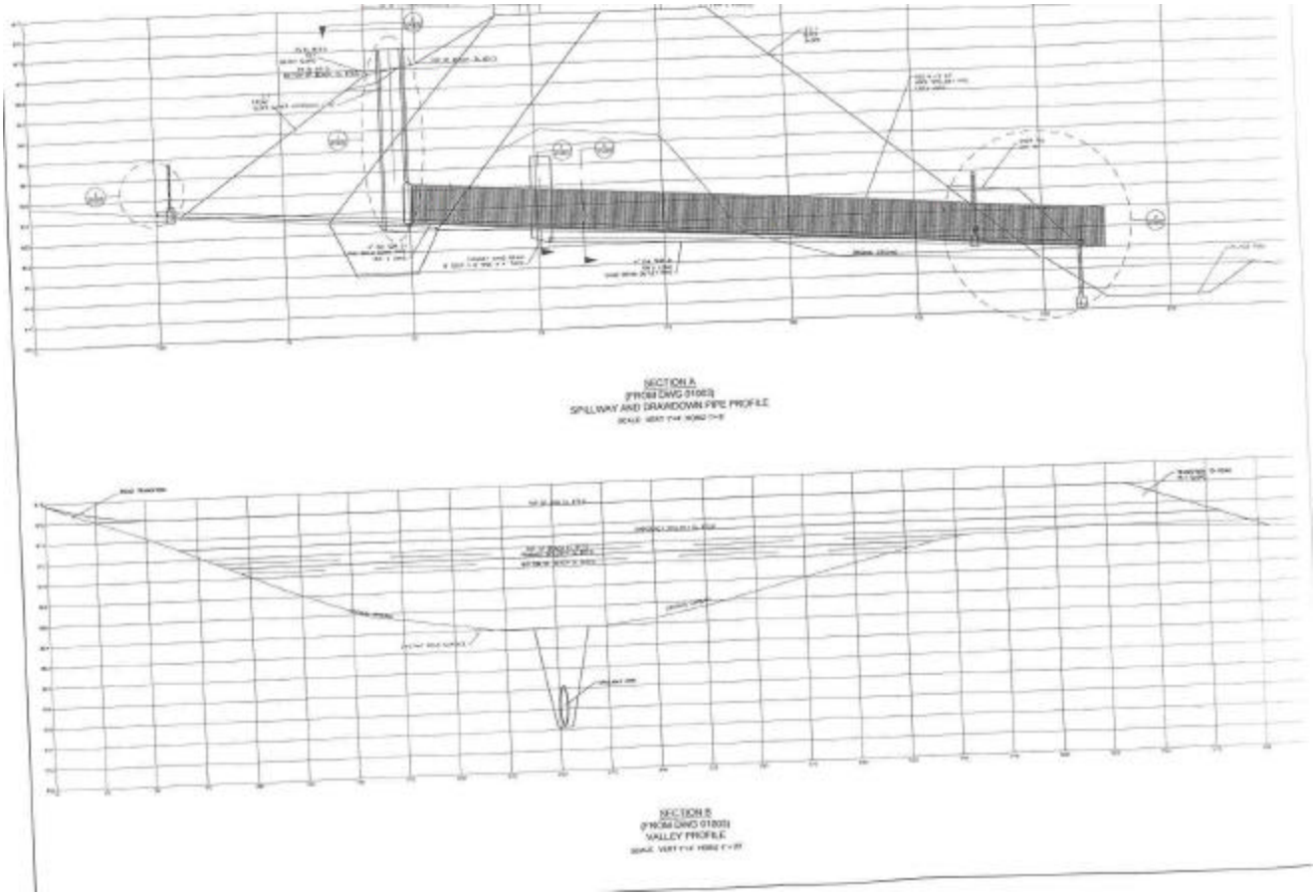


SECTION A
(FROM DWG 01003)
SPILLWAY AND DRAWDOWN PIPE PROFILE



SECTION B
(FROM DWG 01003)
VALLEY PROFILE


SECTION E
(FROM DWG 01004)
SPILLWAY DROP STRUCTURE PLAN VIEW
PIPE CONNECTION
END VIEW
DETAIL 1
(FROM DWG 01004)
SPILLWAY STRUCTURE DETAILS
SECTION F
(FROM DWG 01004)
SPILLWAY OUTLET PIPE TRENCHING DETAIL
SECTION G
(FROM DWG 01004)
CHIMNEY SAND DRAIN
SECTION H
(FROM DWG 01005)
REBAR AT PIPE CONNECTION DETAIL
DETAIL 2
(FROM DWG 01004)
SPILLWAY & DRAWDOWN OUTLET DETAIL
DETAIL 3
(FROM DWG 01004)
DRAWDOWN PIPE INLET
SECTION J
(FROM DWG 01005)
OUTLET PIPE SUPPORT STRUCTURE


SECTION A
(FROM DWG 01003)
SPILLWAY AND DRAWDOWN PIPE PROFILE
SECTION B
(FROM DWG 01003)
VALLEY PROFILE

E

Engineering Requests for Proposals

ADVERTISEMENT FOR BIDS

Fort Scott Community College (FSCC)

(Owner)

(Address)

Separate sealed BIDS for the construction of an Outdoor Classroom, consisting of 3 Retention Pond Dams. Dam 1, 14,600 c.y. with a concrete drop inlet and a 42" HDPE outlet pipe. Dam 2, 4,200 c.y. with a concrete canopy inlet and a 12" SDR 35 PVC outlet pipe. Dam 3, will consist of installing a 12" outlet pipe culvert in an existing berm. Bids will be received by Fort Scott Community College at 2108 South Horton, Fort Scott, Kansas until 4:30pm, May 9, 2003 and then at said office publicly opened and read aloud at, 4:31pm, May 9, 2003.

Parties interested in bidding must contact Agricultural Engineering Associates for bidder pre-qualification prior to obtaining contract documents and/or bidding. The CONTRACT DOCUMENTS may be examined at the following location: Agricultural Engineering Associates, 1000 Promontory Drive, Uniontown, Kansas or Fort Scott Community College,2108 South Horton, Fort Scott, Kansas.

Copies of the CONTRACT DOCUMENTS may be obtained at the office of Agricultural Engineering Associates located at 1000 Promontory Drive, Box 4, Uniontown, Kansas 66779 upon payment of $25 per set, nonrefundable. The phone number for the office is (620) 756-1000.

A pre-bid conference will be held to review any questions on the anticipated construction. Interested contractors are invited to meet at Agricultural Engineering Associates at 1000 Promontory Drive at Uniontown, Kansas. The meeting will be a mutual agreed upon time and date between contractor and Agricultural Engineering Associates. Attendance at the conference is not mandatory for bidding on this project.

State of Kansas

Department of Transportation

Request for Comments

The Kansas Department of Transportation requests comments on the amendment of the Statewide Transportation Improvement Program (STIP) FY 03-05 by adding the following project:

Project U-1933-01—Preliminary engineering, 8th Street from US-83 west to Calvert in the City of Liberal, Seward County

The amendment of the STIP requires a 30-day public comment period. To receive more information on any of these projects or to make comments on the STIP amendment, contact the Kansas Department of Transportation, Office of Engineering Support, 7th Floor, Docking State Office Building, 915 S.W. Harrison, Topeka, 66612-1568, (785) 296-7916, fax (785) 296-0723.

This information is available in alternative accessible formats. To obtain an alternative format, contact the KDOT Bureau of Transportation Information, (785) 296-3585 (Voice/TTY).

The comment period regarding the STIP amendment will conclude May 23.

Deb Miller
Secretary of Transportation

Doc. No. 029257

(Published in the Kansas Register April 24, 2003.)

Fort Scott Community College

Request for Bids

Separate sealed bids for the construction of an outdoor classroom, consisting of three retention pond dams with concrete inlet structures and HDPE outlet pipes, will be received by the Fort Scott Community College, 2108 S. Horton, Fort Scott, 66701, until 4:30 p.m. Friday, May 9, and then will be publicly opened and read aloud at said office at 4:31 p.m. May 9.

Parties interested in bidding must contact Agricultural Engineering Associates for bidder prequalification prior to obtaining contract documents and/or bidding. The contract documents may be examined at the Fort Scott Community College or at Agricultural Engineering Associates, 1000 Promontory Drive, Uniontown.

Copies of the contract documents may be obtained at the office of Agricultural Engineering Associates, 1000 Promontory Drive, Box 4, Uniontown, 66779, (620) 756-1000, upon a nonrefundable payment of $25 per set.

A pre-bid conference will be held to review any questions on the anticipated construction. Interested contractors are invited to meet at Agricultural Engineering Associates. The meeting will be at a mutually-agreed upon time and date between the contractor and Agricultural Engineering Associates. Attendance at the conference is not mandatory for bidding on this project.

Fort Scott Community College

Doc. No. 029255

State of Kansas

Hospital Bioterrorism Preparedness Planning Committee

Notice of Subcommittee Meeting

The Hospitals Liaison Subcommittee of the Kansas Hospital Bioterrorism Preparedness Planning Committee will meet from 10 a.m. to 3 p.m. Tuesday, April 29, at the Kansas Hospital Association, 215 S.E. 8th Ave., Topeka. For further information, contact Tom Sipe at the Kansas Hospital Association, (785) 233-7436

Roderick Bremby
Secretary of Health and Environment

Doc. No. 029249

State of Kansas

Kansas Insurance Department

Notice of Changes in Pharmacy Networks

Pursuant to K.S.A. 40-2,153, the Kansas Commissioner of Insurance is publishing notice that a change has occurred in the following pharmacy networks in the State of Kansas:

Cigna/CGLIC Pharmacy Network has notified the Insurance Department of the following additions to its pharmacy network:

Pharmacy Name	City	Effective Date
Target #T-1487	Mission	10/01/2002
Sams Pharmacy #10-6426	Salina	10/21/2002
Schroeder Drugs	Osage City	10/30/2002
Parsons Family Pharmacy	Parsons	12/11/2002
Medicap Pharmacy #101	Concordia	01/01/2003
Cardinal Drug	Chanute	01/02/2003

Aetna U.S. Healthcare Pharmacy Network has notified the department of the following additions to its pharmacy network:

Pharmacy Name	City	Effective Date
Medicap Pharmacy	Concordia	01/01/2003
Palace Drug Store	Colby	01/23/2003
Eckerd Drug Stores #3951	Olathe	01/24/2003
Walgreens #07147	Wichita	01/24/2003
Walgreens #06112	Olathe	01/31/2003
Target Pharmacy #1543	Olathe	02/15/2003
Hamilton County Drug Store	Syracuse	03/17/2003

In addition, Aetna U.S. Healthcare Pharmacy Network has notified the department of the following terminations from its pharmacy network:

Pharmacy Name	City	Effective Date
Consumers Pharmacy	Wichita	01/06/2003
Medicap Pharmacy	Concordia	02/06/2003
Kmart Pharmacy #3803	Independence	03/06/2003
Kmart Pharmacy #4174	Wichita	03/07/2003
Kmart Pharmacy #7040	Lawrence	03/01/2003

Questions should be directed to Deletria Nash at the Kansas Insurance Department, (785) 296-3071.

Sandy Praeger
Kansas Insurance Commissioner

Doc. No. 029232

F

Summary of Bids

SUMMARY OF BIDS

SHEET 1 of 2 SHEETS **ABSTRACT OF BIDS RECEIVED** Water Quality Project/Outdoor Classroom At Fort Scott Community College (Place of Opening) Date Opened 05/09/2003			Name and Address of Bidder: **O'Toole Construction** Total Bid : $59,820.10		Name and Address of Bidder: **Ron Reed Dozing** Total Bid: $65,388.40		Name and Address of Bidder: **Weston Construction** Total Bid: $63,496.25		Name and Address of Bidder: **Thomas Construction** Total Bid: $45,117.27	
ACCEPTANCE PERIOD										
BID GUARANTEE (Type and Amount)										
Item No.	**Work or Material**	**Quantity and Unit**	**Unit Price**	**Amount**	**Unit Price**	**Amount**	**Unit Price**	**Amount**	**Unit Price**	**Amount**
1.	Site Prep	L.S.		5,000.00		3,800.00		6,977.50		6,840.00
2.	Core Trench Backfill Dam 1	1,208 cu. yds.	1.25	1,510.00	1.30	1,570.40	2.50	3,020.00	.96	1,159.68
3.	Earthfill Dam 1	14,665 cu. yds.	1.15	16,864.75	1.30	19,064.50	1.25	18,331.25	.91	13,345.15
4.	Dam 1 Spillway Pipe	L.S.		15,000.00		18,698.00		15,907.00		12,203.00
5.	Dam 1 Drawdown	L.S.		4,000		3,672.00		1,390.00		1,357.00
6.	Core Trench Backfill Dam2	531 cu. yds.	1.25	663.75	1.30	690.30	2.50	1,327.50	1.00	531.00
7.	Earthfill Dam 2	4,234 cu. yds.	1.15	4,869.10	1.30	5,504.20	1.25	5,292.50	.91	3,852.94

SHEET 2 of 2 SHEETS **ABSTRACT OF BIDS RECEIVED** Water Quality Project/Outdoor Classroom At Fort Scott Community College (Place of Opening) Date Opened 05/09/2003			Name and Address of Bidder: **O'Toole Construction** Total Bid:		Name and Address of Bidder: **Ron Reed Dozing** Total Bid:		Name and Address of Bidder: **Weston Construction** Total Bid:		Name and Address of Bidder: **Thomas Construction** Total Bid:	
ACCEPTANCE PERIOD										
BID GUARANTEE (Type and Amount)										
Item No.	**Work or Material**	**Quantity and Unit**	**Unit Price**	**Amount**	**Unit Price**	**Amount**	**Unit Price**	**Amount**	**Unit Price**	**Amount**
8.	Dam 2 Spillway Pipe	L.S.		6,000.00		5,600.00		7,101.50		2,843.00
9.	Dam 2 Drawdown	L.S.		3,000.00		2,500.00		854.00		932.00
10.	Topsoil Emergency Spillway Dam 2	1,530 cu. yds.	1.25	1,912.50	1.30	1,989.00	1.50	2,295.00	.95	1,453.50
11.	Dam 3 Culvert Pipe	L.S.		1,000.00		2,300.00		1,000.00		600.00

G

Construction Contract Agreement

CONSTRUCTION CONTRACT AGREEMENT

THIS CONTRACT is made on this _____ day of _____ , 2003

between FSCC, (herein referred to as Owner), and **Thomas Construction** (herein referred to as Contractor), as follows:

RECITALS

1. The Owner has prepared preliminary specifications and conceptual plans for the construction of an Outdoor Classroom, consisting of 3 Dams and Reservoirs to be located in the Northwest Quarter of Section 6, Township 26 South, Range 24 East, Bourbon County, Kansas.

2. Contractor has submitted to the Owner a proposal in accordance with the terms of the bid notice.

3. Owner has opened all bids submitted on said project and has determined and declared the Contractor to be the lowest responsible bidder for the sum of $ **45,117.27** the amount set forth in the bid schedule submitted by Contractor, a copy of said schedule being attached hereto and made a part of this contract.

NOW, THEREFORE, in consideration of the sums to be paid to Contractor and the agreements herein contained, Contractor and hereby agree as follows:

SECTION ONE
STATEMENT OF WORK

Contractor shall (a) furnish all tools, equipment, supplies, superintendence, transportation, and other construction accessories, services and facilities; (b) furnish all materials, supplies and equipment specified to be incorporated into and form a permanent part of the complete work; (c) provide and perform all necessary labor in a substantial and workmanlike manner and in accordance with the provisions of the contract documents; and (d) execute, construct, and complete all work included in and covered by Owner's award of this contract to Contractor, such award being based on the acceptance by Owner of Contractor's bid

SECTION TWO
COMPENSATION

1. Owner shall pay the Contractor as the work progresses on a percentage of completion basis to be determined by the Owner.

2. Ten percent of the funds will not be paid to the Contractor until after all construction is completed and approved by the Owner. The Owner, on any amount retained, shall pay no interest.

SECTION THREE
COMPLETION DATE

The work specified in this contract shall begin not later than TEN (10) days after the receipt of the Owner's Notice to Proceed, and shall be completed within NINETY (90) working days from the date of commencement.

SECTION FOUR
INGRESS AND EGRESS

Contractor will confine all ingress and egress to the job site to a 30' wide strip as designated by the Engineer.

SECTION FIVE
EQUAL EMPLOYMENT OPPORTUNITY

In connection with the carrying out of this project, Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other compensation, and selection for training, including apprenticeship.

SECTION SIX
CONTRACT DOCUMENTS

The contract documents comprise the contract, and consist of the following:

a. Advertisement of Bids
b. Information for Bidders
c. Bid
d. This Construction Contract Agreement
e. Notice of Award
f. Acceptance of Award
g. Notice to Proceed
h. General Conditions
i. Technical Specifications for Construction
j. Supplementary Conditions
k. Plans

SECTION SEVEN
SUBCONTRACTORS

If the Contractor intends to subcontract any part of the construction work under this contract, he will first obtain the consent and approval of the Owner.

SECTION EIGHT
BINDING EFFECT OF AGREEMENT

All the terms and conditions of this contract shall be binding on Owner and Contractor, and their responsive heirs, legal and personal representatives, successors, and assigns.

Fort Scott Community College

By _____

By _____
Contractor

H

Letters of Request and Agency Approvals

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
STATE REGULATORY PROGRAM OFFICE - KANSAS
2710 N.E. SHADY CREEK ACCESS ROAD
EL DORADO, KANSAS 67042

REPLY TO
ATTENTION OF:

May 23, 2003

Kansas State Regulatory Office
(200301364)
(Bourbon, KS, NPR)

Mr. Arthur D. Moeller
Agricultural Engineering Associates
1000 Promontory Drive
PO Box 4
Uniontown, Kansas 66779

Dear Mr. Moeller:

This is in response to your application received on April 14, 2003, for a Department of the Army (DA) Permit concerning the plans of Fort Scott Community College to construct a Water Quality Protection Demonstration Project. The project is located in Section 6, Township 26 south, Range 24 east, Bourbon County, Kansas.

The Corps of Engineers has jurisdiction over all waters of the United States. Discharges of dredged or fill material in waters of the United States, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (33 USC 1344). The implementing regulation for this Act is found at 33 CFR 320-330.

The enclosed Jurisdictional Determination (JD) Form describes the extent of waters of the United States on the project site. Also, the enclosed Notification of Administrative Appeal Options and Process and Request for Appeal Form (FORM) describes your options in Section 1 of the FORM. If you choose to appeal, and you have new information concerning the elevation of the OHWM, you should complete Section # II of the FORM and return the FORM to this office. If you choose to appeal, but have no new information, please submit the completed FORM directly to **U.S. Army Corps of Engineers, Commander, Northwestern Division (ATTN: CENWD-CM-OR), 12565 West Center Road, Omaha, NE 68144-3869**.

We have reviewed the information furnished and have determined that the proposed activity will not involve the discharge of dredged or fill material in waters of the United States. Therefore, Department of the Army Permit authorization is **not** required. Other Federal, State and/or Local permits may be required, however, and you should verify this yourself.

Mr. Thomas A. McCabe, Regulatory Specialist, reviewed the information furnished and made this determination. If you have any questions concerning this matter, please feel free to contact Mr. McCabe at 316-322-8247 (FAX 316-322-8259).

Enclosures

Copies Furnished:

Environmental Protection Agency, Water Resources Branch wo/enclosures
Kansas Department of Wildlife & Parks wo/enclosures
Kansas Department of Agriculture wo/enclosures

Agricultural Engineering Associates
1000 Promontory Drive
PO Box 4
Uniontown Kansas 66779
Phone: 620-756-1000
Fax: 620-756-4600

OFFICE COPY

April 3, 2003

Operations Office
Department of Wildlife and Parks
512 SE 25th Ave.
Pratt, Kansas 67124-8174

Re: Fort Scott Community College Water Quality Protection Demonstration Project

Dear Sir:

This is to notify you that the Fort Scott Community College authorized the Department of Environmental Technology to facilitate the construction of the following outdoor classroom water quality dam:

Site No.: **Water Quality Protection Demonstration Project for Public Entities**
County: **Bourbon County**
Legal Description: **NW Quarter Section 6, Township 26 S., Range 24 East**
Land Owners Name: **Fort Scott Community College**
Construction to Start: **May 2003**

Enclosed is an aerial photo and USGS map showing the site location, centerline of the dam, permanent pool elevation and current land uses.

The Contracting Officer for this project is:

Arthur D. Moeller
Agricultural Engineering Associates
1000 Promontory Drive, P.O. Box 4
Uniontown, Kansas 66779
(620) 756-1000

Sincerely,

Contracting Officer

KANSAS

DEPARTMENT OF WILDLIFE & PARKS

KATHLEEN SEBELIUS, GOVERNOR

Ref: D1.1103
Bourbon
Track: 20030196

5/5/2003

Mr. Arthur Moeller
Agriculture Engineering Assoc.
1000 Promontory Drive
PO Box 4
Uniontown, KS 66779

Dear Mr. Moeller:

We have reviewed the Fort Scott Community College Water Quality Demonstration Project located in the NW/4 of Section 6, T26S, R25E Bourbon County, KS. The project was reviewed for potential impacts on crucial wildlife habitats, current state-listed threatened and endangered wildlife species, and public recreation areas for which this agency has some administrative authority.

We consider this project to be an impact level 1, meaning minor impacts to terrestrial or aquatic wildlife or their habitats will occur. The project lies within an area designated as critical habitat for the Broadhead Skink (*Eumeces laticeps*) and Northern Spring Peeper (*Pseudacris crucifer crucifer*); however, a review of aerial photographs indicates no suitable habitat likely exists at the project location. We feel the project will enhance habitat for the Peeper and help improve water quality conditions in the Marmaton River Watershed. We recommend the following general project recommendations be implemented in the project:

1. Implement measures to reduce soil erosion during and after construction.
2. Minimize removal of woody riparian growth above and below the dam site. Wooded riparian areas help with grade stabilization, protect against stream bank erosion, improve water quality, and provide crucial wildlife habitat.
3. Seed the dam, spillway, and other disturbed areas to native grasses and forbs.

No Department of Wildlife and Parks permits or special authorizations are required. Because the Department's recreational land obligations, state threatened and endangered species list and critical habitat designations periodically change; if construction has not started within one year of the date of this review, or if design changes are made in the project plans, the project sponsor must contact this office to verify continued applicability of this review assessment. For our purposes, we consider construction started when advertisements for bids are distributed.

Thank you for the opportunity to provide these comments and recommendations.

Sincerely,

Nate Davis, Aquatic Ecologist
Environmental Services Section

xc: KDWP Reg FW Sup, Tiemann
KDHE, Mueldener

Pratt Operations Office
512 SE 25th Ave., Pratt, KS 67124-8174
Phone 620-672-5911 Fax 620-672-6020 www.kdwp.state.ks.us

Agricultural Engineering Associates
1000 Promontory Drive
PO Box 4
Uniontown Kansas 66779
Phone: 620-756-1000
Fax: 620-756-4600

OFFICE COPY

April 3, 2003

Historical Preservation Department
State Historical Society
6425 SW 6th Ave.
Topeka, KS 66615-1099

Re: Fort Scott Community College Water Quality Protection Demonstration Project

Dear Sir:

This is to notify you that the Fort Scott Community College authorized the Department of Environmental Technology to facilitate the construction of the following outdoor classroom water quality dam:

Site No.: **Water Quality Protection Demonstration Project for Public Entities**
County: **Bourbon County**
Legal Description: **Nw Quarter of Section 6, Township 26 S, Range 24 East**
Land Owners Name: **Fort Scott Community College**
Construction to Start: **May 2003**

Enclosed is an aerial photo and USGS map showing the site location, centerline of the dam, permanent pool elevation and current land uses.

The Contracting Officer for this project is:

Arthur D. Moeller
Agricultural Engineering Associates
1000 Promontory Drive, P.O. Box 4
Uniontown, Kansas 66779
(620) 756-1000

Sincerely,

Contracting Officer

KSR&C No. 03-04-05

KANSAS

Kansas State Historical Society
Dick Pankratz, *Director, Cultural Resources Division*

KATHLEEN SEBELIUS, GOVERNOR

April 16, 2003

Arthur D Moeller
Agricultural Engineering Associates
1000 Promontory Dr
PO Box 4
Uniontown KS 66779

RE: Fort Scott Community College Water Quality Protection Demonstration Project, S6-T26S-R25E
Bourbon County

Dear Mr. Moeller:

The Kansas State Historic Preservation Office has reviewed its cultural resources files for the area of the above referenced project in accordance with 36 CFR 800. The project as proposed should have no effect on properties listed on the National Register of Historic Places or otherwise identified in our files. This office has no objection to implementation of the project.

Any changes to the project area that include additional ground disturbing activities will need to be reviewed by this office prior to beginning construction. If construction work uncovers buried archeological materials, work should cease in the area of the discovery and this office should be notified immediately.

This information is provided at your request to assist you in identifying historic properties, as specified in 36 CFR 800 for Section 106 consultation procedures. If you have questions or need additional information regarding these comments, please contact Will Banks 785-272-8681 (ex. 214) or Jennifer Epperson (ex. 225). Please refer to the Kansas Review & Compliance number (KSR&C#) above on all future correspondence relating to this project.

Sincerely,

Mary R. Allman
State Historic Preservation Officer

Richard Pankratz

Richard Pankratz, Director
Cultural Resources Division

RDP/cg

6425 SW Sixth Avenue • Topeka, KS 66615-1099
Phone 785-272-8681 Ext. 217 • Fax 785-272-8682 • Email dpankratz@kshs.org • TTY 785-272-8683
www.kshs.org

I

Lessons Learned

Lessons Learned

1. **The ability to secure competitive bids from engineering companies who have experience or interest in developing plans for a comprehensive stormwater project.**
2. **Obtaining accurate bids from engineering firms.**
3. **Being able to help administrators understand the concept, and not et excited about the word grant.**
4. **Engineers are not loyal to one engineering firm.**

Solutions

Develop a list of engineering firms in Kansas with experience in non point source pollution or stormwater projects, or create guidelines with recommended costs analysis, perhaps from national base.

KDHE could encourage the use of landscape architects as part of the planning stages to help sell the concept to elected or appointed officials not inclined to understand environmental issues.

Develop rapport with additional engineers within the same firm and always have a contingency plan.

J

Nonpoint Project Status Report

NPS Project Status Report

Quarterly Report 03/04

Project Reporting Period: From July to September 2002

NPS Project Number

Project Name Water Quality Protection Demonstration project for Public Educational Entities

Project Manager Pat Flynn

Signature

Date

Expected Accomplishments for the Reporting Period - Objectives/Tasks Products, etc.	Actual Accomplishments for the Reporting Period	Assessment
1. Survey property	1A. Ag Engineering surveyed campus including drainage area utilizing GPS equipment.	1. Identified logic pathway of all drainage on and off campus.
2. Reviewed topography with engineer and Project Coordinator	2 Met with Project Coordinator and the appointed engineer to establish expectation and goals.	2 Reviewed current BMP for mitigation efforts of stormwater runoff.
3. Reviewed proposed plans to incorporate proper outfall.	3. Meeting with Art Moeller, Mark Green, Pat Flynn.	3. Requested engineer to draw up new plans including outfall structure to accommodate fifty-year flood. Requested engineer to develop plans expanding holding capacity of the third retention pond.
4. Obtain approval from state and federal agencies	4. Meeting with Bruce Taylor to	4. Determined there was mutual benefit in elevating the roadway owned by city and County.
5. Obtain support with the City of Fort Scott	5. Attended scheduled council meeting to determine participation of city in the project	5. The city will provide staff and equipment to asphalt roadway.
6. Obtain assistance with the Bourbon County	6. Attended scheduled council meeting with county commissions to obtain support	6. Received partnership with Bourbon County. [They will provide the following to support the project: a) Road material b) Compaction to engineer specifications c) Asphalt d) Signage
7. Publicize project	7. Pat Flynn interviewed for several area and state newspapers.	7. Articles ran in a) Two articles in the Fort Scott Tribune b) Linn county Registrar c) Farm Talk ran two articles d) Pittsburg Sun e) FSCC School Newspaper
8. Strengthened public support	8. Meeting with neighbors North of campus and developed a strategy	8. Received letters of support from citizens

NPS Project Status Report

Quarterly Report 06/01

Project Reporting Period: From October to December 2002

NPS Project Number

Project Name Water Quality Protection Demonstration project for Public Educational Entities

Project Manager Pat Flynn

Signature

Date

Expected Accomplishments for the Reporting Period - Objectives/Tasks Products, etc.	Actual Accomplishments for the Reporting Period	Assessment
9. Creation of job descriptions for stormwater instructor.	9. Submitted job description and task analysis to FSCC governing body.	9. Determined expertise to design curriculum for stormwater program.
10. Project reporting activities	10. Made presentation to: a) Senate Sub-Committee b) Fort Scott Rotary c) Fort Scott Lady Kiwanis d) Fort Scott High School	10. Exposed program to elected and appointed officials

K

Summary of Grant Expenditures

Quarterly Expenses for the First Year of the Water Quality Protection Model Demonstration Project for Public Educational Entities

Quarter	Personnel	Travel	Supplies	Contractual	Other	Total
1	1150	925	1860	1500	350	5785
2	725	500	1200		220	2645
3	990	900	1685		295	3870
Total						12300

Quarter	Personnel	Travel	Supplies	Contractual	Other	Total
1						
2				4,586.00		
3				21414.00		
Total				26,000.00		

Kansas Department of Health and Environment
Nonpoint Source Pollution Control Program

Affidavit of Grant Expenditures and Nonfederal Contributions

Project Name: Model Stormwater Demonstration Program for Public Entities

Cooperator: Fort Scott Community College

Address: 2108 South Horton

Reporting Period:
From: From 1-1-03 to 3/31/03

Expenditure Category	Grant Expenditures	Nonfederal Contributions
Personnel		2,865.00
Fringe Benefits		865.00
Travel		
Supplies		1,002.75
Equipment (Items over $2,000 only, attach invoice)		
Contractual Services (attach explanation)	3,000.00	1,500.00
Other (attach explanation)		
Indirect Costs		2,350.00
1. Totals for this Reporting Period	3,000.00 (Requested Payment)	7,715.75
2. Totals to date (includes this payment request)		
3. Total funds received from KDHE to end date of this report		
4. Amount of unobligated grant funds held by cooperator		
5. Required cumulative nonfederal contribution		0.00
6. Percent of nonfederal contributions		32.00%

I certify the above amounts are correct and supported by records maintained by the cooperator.

Name & Title:

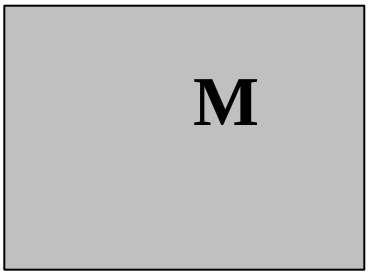
Signature: Date:

Rev. 07/1/02 - RHH/BOW/KDHE

L

Partnership Directory

First Name	Last Name	Partnering Agency	e-mail address	Telepho
Ken	Almes	City of Spring Hill	kenalmes@hotmail.com	620-336
Sam	Atherton	Big Hill Water District	Not available	
Alice	Ballard	City of Augusta	aliceballard@hotmail.com	
Ronnie	Brown	Bourbon County Soil Conservation	Not Available	
Sylvan	Coles	City of Topeka	Not available	
Jim	Current	Retired KDHE employee	jcurrent33@cs.com	
AJ	Dusek	Board of Public Utilities, KC, KS	Not available	
Jerry	Grant	Retired KDHE employee	try2fixit@aol.com	
Dan	Grover	Johnson County Water One	dgrover@waterone.org	
Rex	Heape	South East Kansas District Engineer	rheape@kdhe.state.ks.us	
Dena	Hill	City of Independence	hirode@comgen.com	
Tim	Hobson	Salina Area Technical Schools	tjhobson@midusa.net	
Clarence	Horyna	City of Pittsburg-Wastewater	choryna@pittks.org	
David	King	City of Lawrence-Maintenance	dking@ci.lawrence.ks.us	
Bob	Love	Regional Planning Commission	bob.love@ks.nrcs.usda.gov	
Art	May	Mid-West Assistance Program	map@huntel.net	
Iraj	Pourmirza	Kansas Section-AAWWA	ipourmir@kdhe.state.ks.us	
Chuck	Richey	Allen County Rural Water District	crjrks@midusa.com	
Bill	Schoenberger	USDA-Soil Conservation	william.schoenberger@ks.usda.nrcs.gov	
Garry	Scott	City of Topeka	gscott@topeka.org	
Larry	Shepard	City of Chanute	lshepard@chanute.org	
Chuck	Shively	City of Coffeyville	cshively@coffeyville.com	
Mike	Tate	Bureau of Water	miketate@kdhe.state.ks.us	
Brett	Baker	City of Fort Scott-Public Works Director	fspw@terraworld.net	
Darrell	Thornbrugh	JOCO Wastewater (Collections)	darrellthornbrugh@jcw.com	
Steve	Waite	Dodge City Community College Instructor	swaite@dccc.dodge-city.cc.ks.us	
Vickie	Wessel	KDHE-Training Officer	vwessell@kdhe.state.ks.us	
David	Shepherd	Fort Scott Business Person	dsheperd@shephardauto.com	
Jim	Michael	Land Mitigation Expert	landservice@worldnet.att.net	
-Ray	Denton	Pittsburg State University Division Chair	adenton@pittstate.edu	
Patty	Adams	Engineer	Pvwcadams@aol.com	
Mark	Green	Engineer City of Topeka	MGreen@topeka.org	
Greg	Ruark	Department of Forestry	gruark@fs.fed.us	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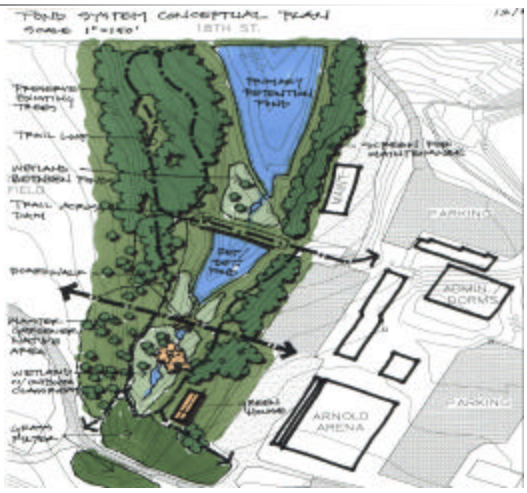
PowerPoint Presentation

Stormwater Management for Public Entities

- Four Year Effort
- On Campus Partnerships
  - Administration
  - Agriculture
  - Biology
  - Athletics



Off Campus Partnerships

- Off Campus partnerships
  - Department of Forestry
  - Department of Agriculture
  - Conservation Districts
  - NRCS
  - League of Municipalities
  - City of Fort Scott
  - Bourbon County

Creating Solutions

- Hydraulic impact of a four-inch rain
- Blending knowledge and experiences
  - Agriculture
  - Municipal

Identifying Pollutants

- Runoff is from over fifty acres of college and public property.
- Homeowners
- Golf Courses
- Roads
- Parking lots
- Rooftops

Desired Outcomes

- Mutual benefit to all parties
- Improved awareness and possible solutions
- Stormwater mitigation protection system
- Best Management Practices for public entities
- Curriculum design for non-point source

Dreams

- Walking trail to improve awareness for all citizens.
- Master Gardeners
- Outdoor classroom.
- Community involvement

N

News Releases and Clippings

Ft. Scott offers Environmental Technology class

It's the middle of the night and the telephone rings. A water main breaks and as a water department employee, it is your job to make sure that the water supply is safe. Are you ready for the challenge? More than 56 students currently enrolled in Fort Scott Community College's Environmental Technology Program soon will be trained to handle all sorts of utility issues. This one-of-a-kind program is making cities and counties across the state of Kansas take notice.

To help address several issues including both the shortage of workers and the quality of service, more than 26 workers in the City of Topeka and those in Johnson County Water District #1, have gone back to school. Workers from these facilities have decided to address the lack of cross training that currently exists in many municipalities. While they are learning other segments of the industry, those students are earning credits toward their associate's degree in environmental technology.

In addition to the extensive classroom training that they receive on campus or at satellite sites, the City of Topeka has contracted with FSCC and other entities to provide specific tailored courses and workshops in water and wastewater management. These kinds of educational opportunities are important because cities and counties are now looking for cross-trained individuals with a higher level of education, says Pat Flynn, Director of the FSCC ET program. "In the long run, a better-trained staff will equal less overtime and will help save the community dollars and frustration," he adds.

"Currently the state of Kansas requires 10 hours of education for workers to maintain their certification," Flynn said. Some time ago, the Kansas Department of Health and Environment (KDHE) selected FSCC to serve as the agent of delivery for training. As a result, FSCC has about 500 to 600 professionals from across the state participate in training sessions throughout a one year period. Over that one year period, there are more than 20 different types of utilities management and cross-training workshops available, not to mention some of the newest workshops pertaining to homeland security.

Flynn explains that as states and municipalities find themselves seeking more diverse training, and that Fort Scott Community College is there to provide its services. In fact the KDHE recently awarded the college with a $30,000 homeland security grant that will be used to train workers in the areas of securing water and wastewater facilities from potential terrorist threats.

FSCC, like most of the education providers in Kansas, is taking a proactive approach to the recent state budget cuts. By seeking grants such as the homeland security grant, the college can pursue advanced training opportunities while maintaining its high standard of quality in environmental education.

Fort Scott Community College developed the Environmental Technology Program more than two decades ago to address the water and wastewater treatment needs of cities and counties across the eastern third of Kansas. Today, the ET program has extended its focus to create a higher quality of life as well as provide a resource center for conservationists.

For more information regarding training opportunities in environmental technology, contact FSCC at 620-223-2700 or visit the website at:

www.fortscott.edu. ☐

FSCC federal grant turns campus into outdoor classroom

Over the next three years, with assistance from the Kansas Department of Health & Environment, the Fort Scott Community College campus will transform into an environmental learning center. Because FSCC received the $300,000 federal development grant, work has begun to make the campus a state model for environmental studies.

This grant will benefit Kansans by studying the effects of non-point source pollution in a variety of settings. One reason this project intrigued Pat Flynn, FSCC environmental Technology program director, was because, "grass retards the solids and will reduce the impact of pollution on the Marmaton River, which is our main source of drinking water."

With the regionalized droughts we have seen, preserving what water we have and developing new ways to keep that water clean is very important, Flynn explained.

In addition, this grant will allow FSCC environmental technology students to study non-point source pollution in a real-life setting and not just under a microscope in the lab. Upon the project's completion in 2005, the FSCC campus will serve as a statewide holistic model using natural solutions to solve nature's pollution and purifying problems.

"Our goal is to serve as a resource center for conservation majors, but not lose the fact that we are here to improve the quality of life," Flynn said.

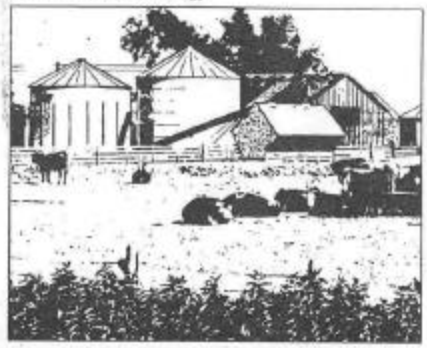
One reason the FSCC campus was chosen for the multi-level project is because it can provide a variety of natural settings in less than a relatively small amount of acreage. On the 150-acre campus, FSCC has many different types of terrain and pollution sources that occur everyday across the country. The run-off from rooftops and parking lots is similar to that of major cities, while the rodeo livestock wastes that run-off from the pasture and holding pens simulate feedlots and other livestock facilities.

Here's the question most people are asking. How far along is the project, and when will you see a difference on campus? Well even though some of the groundwork was done last year including surveying and some clearing of trees, to the passer-by, not much has changed, yet. But with a vision for a cleaner tomorrow, the FSCC environmental technology department plans to make several physical improvements in 2003 such as moving and expanding the current greenhouse, adding classroom space, irrigating the baseball diamonds, and adding several small acreage lakes on the campus in existing low-lying areas. The second stage of the project includes utilizing a landscape architect to developing a variety of rain gardens to create grass filters for the outdoor classroom as well as provide beauty to the campus.

These changes on the FSCC campus will provide an outdoor learning environment in which students of all ages can take advantage of the ecological systems at work. "In addition to the college students, this outdoor classroom will expose kids ages kindergarten through high school to nature," Flynn adds. "There won't be any limitations."

This project has already impacted FSCC's students. They have seen more hands-on training, more efficient data collection, and have learned to read and draw land-use maps. FSCC is working with several area businesses to help boost the economy in Bourbon County as well. "We have tried to structure this project so that the businesses in Bourbon County will benefit from the economic impact," Flynn said. Once completed, the ecological park is expected to draw students and conservationists from across the state.

For more information about this project taking place at Fort Scott Community College, contact the environmental technology department at 620-223-2700.



Linn Cty. News - Feb. 20, 2003

Federal grant to turn Fort Scott campus into outdoor classroom

Submitted by
FORT SCOTT COMMUNITY COLLEGE

FORT SCOTT—Over the next three years, with assistance from the Kansas Department of Health & Environment, the Fort Scott Community College (FSCC) campus will transform into an environmental learning center. A $300,000 federal development grant has allowed work to begin on making the campus a state model for environmental studies.

This grant will benefit Kansans by studying the effects of non-point source pollution in a variety of settings. One reason this project intrigued Pat Flynn, FSCC environmental technology program director, was because "grass retards the solids and will reduce the impact of pollution on the Marmaton River, which is our main source of drinking water." With the regionalized droughts we have seen, preserving what water we have and developing new ways to keep that water clean is very important, Flynn explained.

In addition, this grant will allow FSCC environmental technology students to study non-point source pollution in a real-life setting and not just under a microscope in the lab. Upon the project's completion in 2005, the FSCC campus will serve as a statewide holistic model using natural solutions to solve nature's pollution and purifying problems.

"Our goal is to serve as a resource center for conservation majors, but not lose the fact that we are here to improve the quality of life," Flynn said.

One reason the FSCC campus was chosen for the multi-level project is because it can provide a variety of natural settings in a relatively small amount of acreage. On the 150-acre campus, FSCC has many different types of terrain and pollution sources that occur every day across the country. The run-off from rooftops and parking lots is similar to that of major cities, while the rodeo livestock wastes that run-off from the pasture and holding pens simulate feedlots and other livestock facilities.

Even though some of the groundwork was done last year, including surveying and some clearing of trees, to the passerby not much has changed, yet. But with a vision for a cleaner tomorrow, the FSCC environmental technology department plans to make several physical improvements in 2003, such as moving and expanding the current greenhouse, adding classroom space, irrigating the baseball diamonds, and adding several small-acreage lakes on the campus in existing low-lying areas. The second stage of the project includes utilizing a landscape architect to developing a variety of rain gardens to create grass filters for the outdoor classroom as well as provide beauty to the campus.

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The Fort Scott

118TH YEAR—NO. 49—SINGLE COPY 50¢—FORT SCOTT, KANSAS 66701—THURSDAY, FEBRUARY 27, 2003

FSCC water tech students to take classes outside

By Laura Hyer
Tribune Staff Writer

A park that will be developed at Fort Scott Community College is expected to find solutions to ecological and water pollution problems in Bourbon County.

FSCC has received a $300,000 federal grant that will transform a portion of the campus into an environmental study for students. The Kansas Department of Health and Environment chose FSCC for the project because it offers a variety of natural settings, officials said. The new 10-acre facility, which will be constructed along a creek that runs just west of the main campus, should be open for use in 2005.

Local schools, the local Kansas Army National Guard, businesses, FSCC students and others will help construct the facility. FSCC Environmental Water Technology

'This is another tool to help students love to learn and become more responsible for the environment.' — Fort Scott Community College Environmental Water Technology director **Pat Flynn**

runoff effects and seek natural solutions to water pollution problems, officials said.

"Natural resources, such as

(See CLASSES on Page 2)

Classes

(Continued from Page 1)

grasses, shrubs and trees, will be utilized in the park to reduce the impact of pollution on the Marmaton River, which is our main source of drinking water," FSCC EWT director Pat Flynn said.

Students will examine problems created when water runs through polluted areas, such as the FSCC livestock yard, neighborhoods and rooftops that surround the experimental habitat.

Walking trails will surround the outdoor learning lab and will connect to the existing Lincoln School trail.

A wetland area, which will include a outdoor classroom, will allow students to view organisms as water flows north. As the water continues to flow north into two retention ponds, selected grass, shrubs and trees will purify water naturally, Flynn said.

"Can you imagine how great this will be?" Flynn said as he explained the project and the possible implications the project could mean for the area and the state. "We will be the model for the whole state to observe."

The public, too, will benefit. Butterflies, birds, and other wildlife will inhabit the area allowing both the public to view nature in a natural habitat.

"This is another tool to help students love to learn and become more responsible for the environment," Flynn said.

The public can use walking trails, and a special section will allow visually-impaired visitors to utilize ropes and Braille information to walk through the area, Flynn said.

"We've spoken with neighbors who surround the area, and will show them ways that will prevent water erosion," Flynn said as he explained the neighborhood would become part of the project.

In addition to two retention ponds, an outdoor learning area and trails, a greenhouse will be constructed on the south end of the area to raise plants that will filter water, officials said. Water in the main retention pond will be used to water on-campus baseball and softball diamonds.

Flynn said he is excited because he said it just seems that everything is working together to make the project a success.

Flynn said the project is extensive with limitless learning possibilities.

"Once completed, the ecological park is expected to draw students and conservationists from across the state," Flynn said.

SATURDAY, MAY 17, 2003

County, FSCC, city join forces on EWT project

By Laura Hyer
Tribune Staff Writer

FSCC has received a $300,000 federal grant to construct a natural habitat at FSCC that will allow FSCC water technology students to learn through observation and hands on class time.

In order to begin the project FSCC Environmental Director Pat Flynn and Ag Engineering Associates representative Art Moeller asked Bourbon County Commissioners Terry Graham, Gary Houston and Robert Query for county assistance in tearing out and rebuilding 580 feet of 18th street at Friday's regular commission meeting

"If the city and county and FSCC can form a partnership to get the project underway it will benefit all of us," Flynn told commissioners.

Grant requirements stipulate a partnership in the community to build the project. Plans to tear out 18th street and then raise the road 12 feet will be something that county and city road workers could assist with, Flynn said.

"Raising the road will also take out the blind spot on 18th Street near Horton," Flynn said.

Commissioners Query and Graham hesitated to commit county road workers because the FSCC project will begin at the same time that county road workers begin to lay asphalt and build new road beds for the county, they said.

After discussion it was determined that the county would prepare the roadbed and provide the asphalt that city workers will lay, as well as provide detour signs.

Due to the construction on 18th street traffic will be diverted to the FSCC baseball field and around FSCC. The work should be complete sometime in August, Moeller said.

Commissioners Graham, Houston and Query also viewed new emergency guidelines at the courthouse and approved those

(See URBAN on Page 2)

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Proposed Budget for 2003

Proposed 2003 Budget
Fort Scott Community College
Model Stormwater Demonstration Program for Public Entities

	Section 319/KDHE	Contributors	Total
Dry Storage (Shed)		26,000	26,000
Compost Project	900	1,500	2,400
Profile Study (setting grade stakes)	950	500	1,450
Tree removal (168 trees @ $40/tree)		6,720	6,720
Hire Project Coordinator/Instructor (including benefits)	26,000	15,000	41,000
Engineering for Dirt Work	12,000	8,000	20,000
Construction of Retention Ponds **(**480 hr @ 100/hr)	48,000		48,000
Dirt work to Cattle area (70 hours @ 100/hr)	5,000	2,000	7,000
Filter Strip (100 ac @1.5/ac)	1,500		1,500
Soil Testing (150 samples @ 25/ sample)	2,000	500	2,500
Construction of variable draw off		1,000	1,000
Culvert (100 ft @ 35 / ft)		1,500	1,500
Installation of Irrigation System	19,000	2,000	21,000
Pumping station	20,500	1,000	21,500
Construction of runoff structure (10 hr @ 150/hr)	1,500	500	2,000
Media (.4 ac x 1.5 D = 1000 cu yds of rock)	8,000		8,000
Filter Strips (Native grasses 225 ac @ 10ac)	1,400		1,400
Construction of rock filter	950		950
Tree replanting (100 trees @ $25/tree)	2,250	250	2,500
	$149,950	$66,470	$216,420

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Engineering – Total Project

Agricultural Engineering Associates
Uniontown, KS 66779

Client: Fort Scott Community College
Fort Scott, KS

Water Quality Project, Engineering Expense Summary

Initial Proposal Description

Detailed Topographic Mapping		$3,000.00
Preliminary Design of Dams, explaining options (1st Iteration)		$3,000.00
	Subtotal	$6,000.00

Description of Change Orders/ Verbally Added Items

***(These items have been billed)**

2nd Design Iteration (Make 18th St. the dam)		$5,620.63
3rd Design Iteration (Increase the size of the 18th St. dam)		$3,026.50
Governmental Jurisdictional Review Submittals (i.e. Army Corps., KDWR, Wildlife and Parks, Historical Society)		$1,500.00
Detailed Topographic Mapping on the west side of campus and on the north side of 18th St.		$2,042.55
More detailed topographic mapping of the ball fields		$1,200.00
Develop 'Request for Proposal' (RFP) to begin the construction phase		$1,000.00
	Subtotal	$14,389.68

***(These items have not been billed)**

More detailed design work to provide the water quality aspect of the project (i.e. various weir configurations on the large drop structure to determine suitable detention times. Modifications to canopy inlet to provide a live pool storage depth. Live pool elevations for 2 additional storms, the 1" and 1.5".)	$3,500.00
Initial Phase of Construction Management (Items included: fielding questions from contractors regarding bidding, pre-bid conference and bid letting)	$800.00

Additional Project Items not yet Billed

Construction Staking		$1,800.00
Final Phase of Construction Management		$3,000.00
Compaction testing and quality control		$1,200.00
	Subtotal	$6,000.00

Proposal for Services

Proposal to determine earthwork borrow area (includes borings, survey, calculations and proctor test) *(Additional expense for clearing borrow area may be necessary)	$2,000.00
Total for all Services	$32,689.68

Date: 5/14/2003